UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

ESCORT INC.,

Plaintiff,

v.

UNIDEN AMERICA CORPORATION,

Defendant.

CIVIL ACTION NO.: 3:18-cv-00161-N

APPENDIX IN SUPPORT OF UNIDEN'S UNOPPOSED MOTION FOR LEAVE TO AMEND INVALIDITY CONTENTIONS

Dated: December 31, 2019

Respectfully submitted,

By: */s/ David B. Conrad*

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ATTORNEYS FOR DEFENDANT UNIDEN AMERICA CORPORATION

CERTIFICATE OF SERVICE

I hereby certify that this document has been served upon all counsel of record by means of the Court's ECF system, on this day, December 31, 2019.

/s/ David B. Conrad
David B. Conrad

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

ESCORT INC., *Plaintiff,* **v.** **UNIDEN AMERICA CORPORATION,** *Defendant.*	**CIVIL ACTION NO.: 3:18-cv-00161-N**

DECLARATION OF MICHAEL R. ELLIS IN SUPPORT OF UNIDEN'S UNOPPOSED MOTION FOR LEAVE TO AMEND INVALIDITY CONTENTIONS

I, Michael R. Ellis, declare as follows:

1. I am an attorney at Fish & Richardson and am duly licensed to practice law in the State of Texas. I have personal knowledge of the facts set forth in this declaration, and if called as a witness I would testify competently to these facts. I submit this declaration in support of Uniden America Corporation's ("Uniden['s]") Unopposed Motion for Leave to Amend Invalidity Contentions.

2. I exchanged several emails with Escort Inc.'s ("Escort['s]") counsel Mr. Timothy Grochocinski between December 12, 2019 and December 19, 2019 wherein I provided Mr. Grochocinski with the supplementations reflected in Exhibits A and B and requested Escort's position regarding Uniden's forthcoming request for leave to amend.

Those exchanges culminated with Mr. Grochocinski indicating that Escort would not oppose Uniden's request for leave to amend.

I declare under penalty of perjury under the laws of the United States of America that the above is true and correct to the best of my knowledge. This Declaration was executed on December 30, 2019 in Dallas, TX.

Dated: December 30, 2019

/s/ Michael R. Ellis
Michael R. Ellis

EXHIBIT A

Exhibit A-2: Invalidity Chart of U.S. Patent No. RE39,038
in view of Knowledge, Use, and Invention by Steven Orr ("Orr's Prior Invention")

Orr's Prior Invention was conceived around 1988 and reduced to practice no later than 1996. Alternatively, Orr's Prior Invention was diligently reduced to practice no later than March 29, 1999. Alternatively, Orr's Prior Invention was diligently reduced to practice no later than June 6, 1999. Orr's Prior Invention was not abandoned, suppressed, or concealed and resulted in U.S. Provisional App. Nos. 60/139,097, 60/145/394, PCT/US00/16410, U.S. Patent No. 6,670,905, and U.S. Pat. Pub. No. 2003/0218562. Therefore, Orr's Prior Invention is available as prior art at least under 35 U.S.C. §§ 102(a), 102(b), 102(f), 102(g), 103, etc.

Around 1988, when interviewing with Cincinnati Microwave ("CMI"), Steven Orr conceived of the patented idea for using upcoming technology such as GPS measurement to enhance the company's police radar detectors. Around 1992-1993, Mr. Orr began collecting field data from stationary sources that were not police radar sources to research his idea. Around 1995-1996, Mr. Orr attended a brainstorming meeting with Beth Andrews, Greg Blair, and others to discuss radar detector enhancements related to false alarms, including using GPS. The discussion included vehicle speed and vehicle position muting of radar alerts. Mr. Orr began evaluating GPS technology to figure out how to incorporate it in radar detector products in an affordable way. He purchased one of the first cost-effective GPS receivers, a Rockwell PCMCIA card, to integrate into his data collection system in order to collect actual location information with the signal source data. His next step was to create a prototype for demonstration. The laptop would report radar signals from an off-the shelf radar detector, and if the user hit the space bar at a certain location, the system would mute the audible alarm and store the location to disk. When he returned to the same location, it would not report the signal. In order to demonstrate the speed-based constraint, the prototype also had functionality to determine whether the system was traveling above or below a certain speed. After establishing in 1996 that the system could mute an alert based on location or vehicle speed, Mr. Orr continued his research towards developing a GPS-enhanced radar detector at a price and performance that would be acceptable to consumers, including continued field testing and data collection. He continued his effort in 1998 on behalf of Escort after CMI's bankruptcy. In early 1999, Mr. Orr began drafting a disclosure for a provisional patent application. He completed the document no later than March 29, 1999 and sent it to Escort's patent attorneys, who prepared and filed the disclosure in U.S. Provisional App. Nos. 60/139,097 on June 6, 1999. *See* Dep. of Steve Orr ("Orr Dep.") (Oct. 18, 2019) and exhibits cited therein; *see* Dep. of Thomas Humphrey (Oct. 30, 2019) and exhibits cited therein; *see* Dep. of Hoyt Fleming (Nov. 6, 2019) and exhibits cited therein; *see* Dep. of John Kuhn (Nov. 19, 2019) and exhibits cited therein.

In addition to the foregoing patents, patent applications, publications, depositions, and the exhibits cited therein, Uniden intends to rely upon at least:

- ORR000001-ORR001680;

- Fleming0021064;
- All physical exhibits maintained by Escort and made available to Uniden for inspection;
- Prosecution histories of U.S. Appl. Nos. 09/889,656; 10/396,881; 11/468,196; 12/195,147; 14/013,623; 14/727,610, including but not limited to Orr Dep., Ex. 1, Second Declaration of Steven K. Orr under 37 C.F.R. 1.131 (ESCT-0000132378-132386, UNIDEN_0070445-70461) ("Orr Decl.");
- U.S. Pat. Pub. No. 2003/0218562, filed on March 25, 2003, and International Application Pub. No. WO 00/77539, filed on June 14, 2000, both having a priority date of June 14,1999, and provisional applications filed by Mr. Orr on June 14,1999 and on July 23, 1999;
- U.S. Pat. Nos. 5,305,007, filed on April 13, 1993, and 5,668,554, filed on September 23, 1996;
- *Fleming v. Escort*, 774 F. 3d 1371 (Fed. Cir. 2014), including all statements, briefs, pleadings, declarations, contentions, testimony, discovery responses, evidence, hearing transcripts, or other submissions during the appeal and underlying litigation: *Hoyt A. Fleming v. Escort Inc.*, Case No. 1:09-cv-00105-BLW (D. Idaho) (the "Fleming v. Escort" litigation), proffered by Escort regarding Orr's Prior Invention and reduction to practice, including, *inter alia*:
  - Trial and deposition testimony in the Fleming v. Escort litigation regarding Orr's Prior Invention and reduction to practice;
  - Escort's verified discovery responses in the Fleming v. Escort litigation regarding Orr's Prior Invention and reduction to practice;
  - Pleadings, briefs, and/or other submissions (including any attachments and/or exhibits) regarding Orr's Prior Invention and reduction to practice submitted by or on behalf of Escort;
  - Trial exhibits in the Fleming v. Escort litigation (whether admitted or not) regarding Orr's Prior Invention and reduction to practice;
  - Mr. Orr's declarations in connection with the Fleming v. Escort litigation as well as IPR2013-00203 and IPR2013-00240 (ESCT-0000026331-26338, ESCT-0000116054-117319, ESCT-0000132378-132386,

ORR000005-74, UNIDEN_0007851-7919, UNIDEN_0012296-12366) which are incorporated herein by reference;

- o Defendant Escort's Patent Invalidity Contentions in the Fleming v. Escort litigation, including Exhibits 1, 2, 8, 17, 18, 23, 32, 33, 38, B-11 to B-16, B-21 to B-25, B-31 to B-37; and

- o Escort's supplemental interrogatory responses in the Fleming v. Escort litigation detailing the supporting evidence, which were filed with the Court (Dkt. Nos. 142-17 and 142-18) in that litigation, and Escort's expert's invalidity expert report further detailing the supporting evidence, which were filed with the Court (Dkt. No. 98-3) in that litigation, both of which cite the following documents produced to Fleming by Escort in that litigation and which are herein incorporated by reference; ESC 1-ESC 35; ESC 1080-ESC 1153; ESC 2000-ESC2070; ESC 2505-2529; ESC 2576-ESC 5365, ESC 5595-ESC 5810, ESC 14168, ESC 14169, ESC 14667-ESC 14681, ESC 14781-ESC 14861, ESC 15001-ESC 15208.

- Escort's defense of *K-40 v. Escort*, IPR2013-00203 and IPR2013-00240, including all statements, declarations, response briefs, contentions, testimony, exhibits, evidence, and other submissions proffered by Escort regarding Orr's Prior Invention and reduction to practice, including, inter alia, Mr. Orr's trial and deposition testimony, including any exhibits used therewith, declarations and exhibits submitted by Mr. Orr, and any other declarations and exhibits submitted or relied upon by Escort regarding Orr's Prior Invention and reduction to practice;

- All documents and files referenced in the Orr Decl.; and

- All documents and things—such as the fully functional laptop trial exhibit at the *Fleming v. Escort* trial (before the Court precluded Escort from using all the software, thus rendering it non-functional), and all the source and executable code that Escort attempted to rely upon at any time during the Fleming v. Escort litigation, whether ultimately allowed to or not, including all the evidence cited in the materials referenced above and all Escort's trial exhibits, whether admitted or not; all container or archive files, such as ".zip" files, as well as the individual uncompressed files which have been combined within each container/archive file; as well as anything withheld from production to date relating to Orr's Prior Invention or Orr's reduction to practice.

In combination with U.S. Patent No. 6,252,544 ("Hoffberg"), filed on January 25, 1999 and with U.S. Patent No. 5,250,951 ("Valentine '951"), filed on November 27, 1992.

U.S. PATENT NO. RE39,038

Defendant's invalidity contentions are not an admission by Defendant that it infringes or has previously infringed these claims, either literally or under the doctrine of equivalents, particularly when they are properly construed. Nor are Defendant's invalidity contentions an admission regarding the proper scope of the asserted claims. The following citations are exemplary, and Uniden reserves the right to rely upon other portions of the references or other materials cited above.

No.	'038 Claim Language	("Orr's Prior Invention")
1pre **(not asserted)**	A method, executed by a device having a position, of generating an alert to an incoming radar signal having a frequency and a signal strength, the method comprising the acts of:	If the preamble is limiting, Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches a method "for collecting field data from a radar detector, so that data could be stored from each radar encounter of the detector. The system involved a radar detector cabled (via fiber optics) to a laptop's COM port. When the detector encountered a radar signal sufficient for an alert, spectral information and the band of the encountered radar signal were recorded by the laptop computer, which also emitted an audible 'beep.'" (*See* Orr Decl. ¶ 4). This method is executed by a radar detector, which has a position, and generates an alert to an incoming (encountered) radar signal that has a frequency and a signal strength. *See, e.g.*, Orr Dep. 12-13, 27-29, 30-31, 45-47, 89, 97. *See, e.g.* Orr Dep., Ex. 2 at 1:

		Abstract Radar Detectors warn drivers of the use of police radar, and the potential for traffic citations if the driver exceeds the speed limit. The FCC has allocated several regions of the spectrum for Police Radar as well as a variety of "other" unrelated applications. Radar Detectors cannot tell the difference between emissions from many of these other devices and true Police Radar systems. As a result, the significance of a warning from a Radar Detector will decline as more non-Police Radar products are operated in this spectrum. Since the majority of these "other" applications are stationary, Radar Detectors could ignore them if their locations were known during operation. The Global Positioning Satellite System (GPS) offers an electronic method for establishing current physical coordinates very accurately. This patent describes a new and better way to provide Radar Warning information to drivers by using the information from a GPS receiver to condition the response from a Radar Detector. The detector will maintain a list of the coordinates of the known "offenders" in nonvolatile memory. Each time a microwave or laser source is detected, it will compare its current coordinates to this list. Notification of the driver will take on a variety of forms depending on the setup configuration. "The jury in this case … found invalidity, however, as to five claims of the '038 patent—claims 1, 18, 45, 47, and 48. The jury invalidated claim 45 as anticipated by Orr's prior invention. It invalidated claim 18 as anticipated by the Orr invention and also for obviousness in light of Orr's invention and two prior-art patents, Hoffberg (U.S. Patent No. 6,252,544) and Ross (U.S. Patent No. 5,977,884). And it invalidated claims 1, 47, and 48 for obviousness in light of Orr's prior invention and two prior-art patents, Hoffberg and Valentine (U.S. Patent No. 5,146,226)." *Fleming v. Escort*, 774 F. 3d 1371 (Fed. Cir. 2014). To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[r]adar detectors typically are employed to detect operating emitters of X (10.5 GHz), K (25 GHz) and Ka (35 GHz) radar emissions from traffic

		control devices or law enforcement personnel for detecting vehicle speed by the Doppler effect." (Hoffberg at 19:16–20). Hoffberg teaches that "[i]t is noted that, in the case of 'false alarms', the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored 'false alarm' event, and suppress an alarm or modify the alarm signal. Thus, information stored in memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Hoffberg at 29:8–13). Hoffberg teaches that "[i]n a preferred embodiment, an event sensor is provided, such as a police radar and laser speed detection equipment system (e.g., "radar detector") is provided." (Hoffberg at 33:10–12).
1a	(a) detecting the incoming radar signal;	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches "[w]hen the detector encountered a radar signal sufficient for an alert…" (*See* Orr Decl. ¶ 4). Orr's Prior Invention teaches "collecting field data from a radar detector, so that data could be stored from each radar encounter of the detector." (*See* Orr Decl. ¶ 4). *See, e.g.*, Orr Dep. 124-125. *See, e.g.* Orr Dep., Ex. 2 at 1:

Abstract

Radar Detectors warn drivers of the use of police radar, and the potential for traffic citations if the driver exceeds the speed limit. The FCC has allocated several regions of the spectrum for Police Radar as well as a variety of "other" unrelated applications. Radar Detectors cannot tell the difference between emissions from many of these other devices and true Police Radar systems. As a result, the significance of a warning from a Radar Detector will decline as more non-Police Radar products are operated in this spectrum. Since the majority of these "other" applications are stationary, Radar Detectors could ignore them if their locations were known during operation. The Global Positioning Satellite System (GPS) offers an electronic method for establishing current physical coordinates very accurately. This patent describes a new and better way to provide Radar Warning information to drivers by using the information from a GPS receiver to condition the response from a Radar Detector. The detector will maintain a list of the coordinates of the known "offenders" in nonvolatile memory. Each time a microwave or laser source is detected, it will compare its current coordinates to this list. Notification of the driver will take on a variety of forms depending on the setup configuration.

See, e.g., Orr Dep., Ex. 34 at p. 4:

```
 a$ = INKEY$
IF a$ = CHR$(27) THEN END
IF a$ = "*" THEN dhistory = 1
IF (a$ = " ") THEN page2 = -1 ELSE page2 = 0

        xdetect = flaga AND 1: IF xdetect THEN xdetect = -1
        kdetect = flaga AND 2: IF kdetect THEN kdetect = -1: xdetect = 0
        kadetect = flaga AND &HC: IF kadetect THEN kadetect = -1
        kaouter = flaga AND 8
        kainner = flaga AND 4

train = lcount AND 32: IF train THEN train = -1
emergency = lcount AND 64: IF emergency THEN emergency = -1
roadhaz = lcount AND 128: IF roadhaz THEN roadhaz = -1

anydetect = xdetect OR kdetect OR kadetect OR hotkdetect OR hotxdetect
```

To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of

		ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[t]he events to be stored may be detected locally, such as through a detector for radar …" (Hoffberg at 19:5–6). Hoffberg teaches that "[r]adar detectors typically are employed to detect operating emitters of X (10.5 GHz), K (25 GHz) and Ka (35 GHz) radar emissions from traffic control devices or law enforcement personnel for detecting vehicle speed by the Doppler effect." (Hoffberg at 19:16–20). Hoffberg teaches that "[i]t is noted that, in the case of 'false alarms', the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored 'false alarm' event, and suppress an alarm or modify the alarm signal. Thus, information stored in memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Hoffberg at 29:8–13). Hoffberg teaches that "[i]n a preferred embodiment, an event sensor is provided, such as a police radar and laser speed detection equipment system (e.g., "radar detector") is provided." (Hoffberg at 33:10–12).
1b	(b) determining the position of the device that detected the incoming radar signal; and	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches "[t]he functions performed using the combined radar encounter and GPS tool included the following function: hitting the space bar on the laptop computer during use would store a current GPS coordinate as a 'rejected coordinate." (*See* Orr Decl. ¶ 11). Orr's Prior Invention teaches "perform[ing] numerous driving experiments in which GPS coordinates and velocity information were collected…" (*See* Orr Decl. ¶ 12). Orr's Prior Invention therefore teaches recording physical position of the radar detector, which detected the incoming radar signal. *See, e.g.*, Orr Dep. at 130-132.

		See, e.g., Orr Dep., Ex. 2 at p. 9:
		
		Application of GPS to Police Radar Response Conditioning and Three Product Classes.
		
		Even though an array of GPS technologies is available for Radar Detection applications, three relative product classes are envisioned. Class 1 is the least expensive and most primitive and is the combination of a Radar Detector with GPS receiver. Class 2 is a combination of the more expensive DGPS receiver pair with Detector. Class 3 is a Radar Detector coupled with another product that already provides GPS or DGPS based services.
		
		The distinction between Class 1 and Class 2 service is better understood with the following operating scenario. Each day a driver passes a shopping center that uses X or K-Band Microwave Door openers. His detector faithfully detects these signals during each pass. The driver's Radar Detector is equipped with a GPS receiver and is able to identify its coordinates. As he passes the shopping center he hits the 'lockout' button on his detector. The detector stores the coordinates of his current location, and the frequency of the signal just detected into an internal non-volatile memory device. The following day the driver begins a new journey along the same path. At power up the radar detector begins an iterative task that involves the observation of its coordinates followed by a test to see if these coordinates are within a certain tolerance of any coordinates in its memory. As the journey proceeds, the detector will realize that it is within the tolerance range of the shopping center and prepare to reject any signals that are within a tolerance of the frequencies that were noted from the previous trip. Since Class 1 service is
		
		See, e.g., Orr Dep., Ex. 34 at p. 2:
		
		`WHILE LOC(2) > 128`
		`LINE INPUT #2, v$`
		`IF INSTR(v$, "$GPGLL") THEN`
		`zlat = fnz(9): zlong = -fnz(22): Sr$ = v$`
		`locked = 0`
		`FOR I = 1 TO fidx`
		`za = ZLock(I, 1) - zlat: zB = ZLock(I, 2) -`
		`zlong: zdist = SQR(za * za + zB * zB)`
		`IF zdist < .25 THEN locked = 1: Pindex = I`
		`NEXT I`
		`END IF`
		`IF INSTR(v$, "$GPVTG") THEN I = INSTR(v$, "M"): zVelocity =`
		`fnzz(I + 2)`
		`WEND`

		To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[a] mobile communications device comprising a location sensing system, producing a location output; a memory, storing a set of locations and associated events." (Hoffberg at Abstract). Hoffberg teaches that "[k]nown GPS mobile systems include memory to record location, time and event type, and some systems may be integrated with global information systems, to track path, speed, etc." (Hoffberg at 1:23–26). Hoffberg teaches that "[t]he PRN codes allow use of a plurality of GPS satellite signal transmitters for determining an observer's position and for providing location information." (Hoffberg at 4:21–23). Hoffberg teaches that "[t]he present invention provides a mobile telecommunications device having a position detector, which may be absolute, relative or other type, a memory for storing events in conjunction with locations, and a transmitter or receiver for communicating information stored or to be stored in the memory." (Hoffberg at 18:15–20).
1c	(c) generating an alert if the position of the device is not within a predetermined distance of a predetermined position.	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches that "[t]he software running in the laptop would generate alerts of received radar signals, but would suppress alerts of radar near a rejected GPS coordinate." (*See* Orr Decl. ¶ 11). *See, e.g.*, Orr Dep. 98, 131, 201-202, 233. *See, e.g.*, Orr Dep., Ex. 2 at pp. 9-10:

		Application of GPS to Police Radar Response Conditioning and Three Product Classes. Even though an array of GPS technologies is available for Radar Detection applications, three relative product classes are envisioned. Class 1 is the least expensive and most primitive and is the combination of a Radar Detector with GPS receiver. Class 2 is a combination of the more expensive DGPS receiver pair with Detector. Class 3 is a Radar Detector coupled with another product that already provides GPS or DGPS based services. The distinction between Class 1 and Class 2 service is better understood with the following operating scenario. Each day a driver passes a shopping center that uses X or K-Band Microwave Door openers. His detector faithfully detects these signals during each pass. The driver's Radar Detector is equipped with a GPS receiver and is able to identify its coordinates. As he passes the shopping center he hits the 'lockout' button on his detector. The detector stores the coordinates of his current location, and the frequency of the signal just detected into an internal non-volatile memory device. The following day the driver begins a new journey along the same path. At power up the radar detector begins an iterative task that involves the observation of its coordinates followed by a test to see if these coordinates are within a certain tolerance of any coordinates in its memory. As the journey proceeds, the detector will realize that it is within the tolerance range of the shopping center and prepare to reject any signals that are within a tolerance of the frequencies that were noted from the previous trip. Since Class 1 service is

		Response Options that Take Advantage of GPS Information There are two methods by which the Radar Detector can acquire the coordinates of unwanted sources. One method is for the user to push a 'lock out' button when he believes he is in proximity to a source that he no longer wants to detect. A second method is to have this information be supplied from another source and already be available in stored memory. In this case an external computer must previously send these coordinates to the Radar Detector which then would transfer them to its non-volatile memory. This second method will be discussed later. A number of different operational "lock out" conditions are supported by the software. These cases are itemized as follows: 1. Coordinate match, frequency match, no sound, some visual 2. Coordinate match, no sound, some visual 3. Coordinate match, no sound, minimal visual In case 1, when the Radar Detector enters a locked region denoted by a coordinate match (+-tolerance), it will compare the frequencies of any signals received with those that were present when the lockout was instantiated by the user. If the observed frequency does not match the list of stored frequencies for this region, it is probably being generated by a new source that was not present during the previous lockout. This is likely to occur if Police Radar is being operated in proximity to the lockout region. Consequently the Radar Detector will announce that a new threat is perceived both audibly and visually. If the observed frequency does match one of the members of the list, the detector will produce no audible alert. However it will still produce a visual display indicating detection. The visual display informs the user that the unit is in a lock out region as well as when signals are actually being detected within that region. If the source is determined to be in the "Hazard Signal" category, the Hazard or SWS information will still be displayed but with no audio. The scope of the lockout can be expanded to include more frequencies by hitting the lock out button again. This will occur if the button is depressed while the detector is in audible alert in a previously designated lockout region. The user can also optionally terminate the lock out condition while in the area. *See, e.g.*, Orr Dep., Ex. 34 at p. 2:

		<pre>WHILE LOC(2) > 128
		        LINE INPUT #2, v$
		        IF INSTR(v$, "$GPGLL") THEN
		                zlat = fnz(9): zlong = -fnz(22): Sr$ = v$
		                locked = 0
		                FOR I = 1 TO fidx
		                        za = ZLock(I, 1) - zlat: zB = ZLock(I, 2) -
		zlong: zdist = SQR(za * za + zB * zB)
		                        IF zdist < .25 THEN locked = 1: Pindex = I
		                NEXT I
		        END IF
		        IF INSTR(v$, "$GPVTG") THEN I = INSTR(v$, "M"): zVelocity =
		fnzz(I + 2)
		WEND</pre>
		See, e.g., Declaration of Mr. John Kuhn (ESC-000184908-184913) at ¶ 5:

		5. Escort's investment in the Passport 9500i, Passport 9500ix, GX 65, and Passport iQ radar detectors continued in approximately April or May 1996. During that time period, Escort invested in the work of Mr. Steve Orr, who reduced to practice a radar detector that suppressed false alerts. Mr. Orr's work, and Escort's investment, also included collecting field data from a radar detector, so that data could be stored from each radar encounter of the detector, in connection with a laptop computer. Spectral information, frequency, band, and strength of the encountered radar signal were evaluated or recorded by the laptop. The system emitted an audible "beep," although notification of the driver may have taken on a variety of forms depending on the setup configuration. Mr. Orr's work also involved combining radar encounter, GPS tools, and a laptop to store GPS coordinates as rejected coordinates. In this manner, Mr. Orr's work involved recording physical positions of the radar detector, generating alerts of received radar signals, and suppressing alerts near a rejected GPS coordinate. Mr. Orr also evaluated generating an alert if characteristics of the encountered signal were not similar to a predetermined characteristic. Mr. Orr's work also involved a velocity constraint concept being implemented in a radar detector having both GPS and radar detector functions. He used means for ignoring signals based on the vehicle's speed when compared to set speeds and posted limits. Mr. Orr's work also involved using the combined radar encounter and GPS tools, along with

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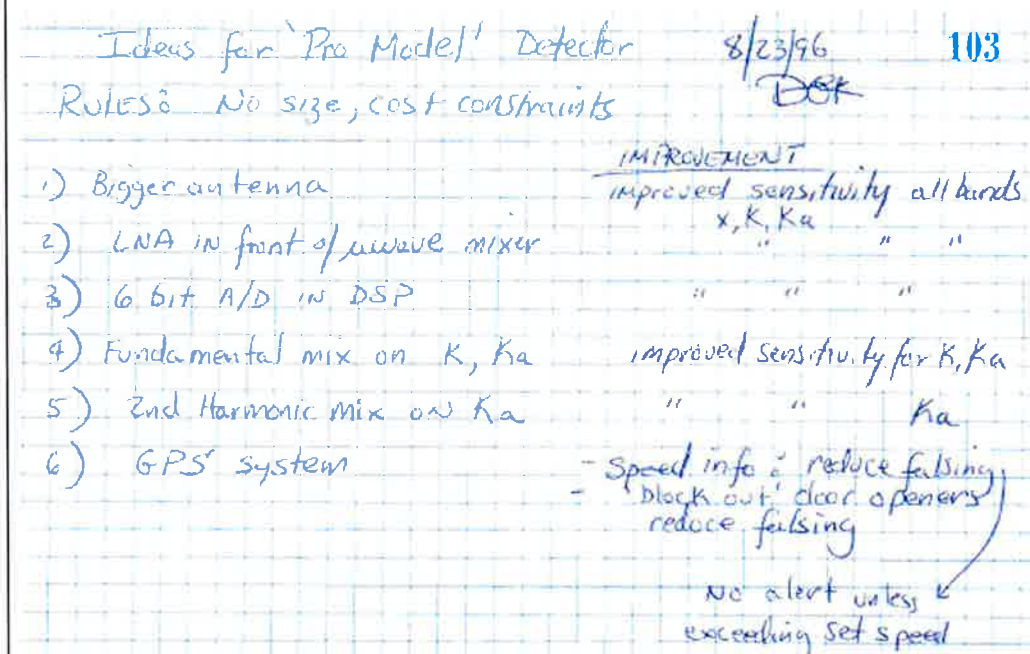
		hitting the space bar on the laptop, to store current GPS coordinates. This provided for response conditioning, including muting. Mr. Orr's work also had the capability to locking out detected signals based on band and frequency. *See, e.g.*, ORR000329 (4/2/96): Selectivity/Adjustability * > Adjustable City next product > GPS for #75 – trainable auto-X source Possible further product → – Speed-Sensitive Sensitivity > Optional X-band false function * 70% probability X-band false 30% chance cop *See, e.g.*, ORR000463 at 466 (4/3/1996):

		Author: GBLAIR at CMI-MAIL Date: 4/3/96 9:36 AM Priority: Normal CC: TPERSZYK TO: BANDREWS TO: SORR Subject: Re: Integration Approach ------------------------------------ Message Contents ---------------- Steve: CMI entering the ETAK business just to get speed and position to silence a detector seems like a backwards move. Could we patent the concept of vehicle speed (not engine speed) muting and vehicle position muting and then work with the ETAK folks for a data link to our detectors? I believe that the new vehicle option and aftermarket volumes for ETAK systems over $500 is small. The rental car company commercial of the woman and her daughter locating her sister's new house way out in the boonies is the best use I can think of. Of course the sister with the new house could have picked up the other one and her niece at the airport. The hand held GPS market was extremely small at $1000. The new data says that units on promo at $200 sell well to pleasure boaters and hikers. Whatever we use for speed and position sensing needs to be transparent to the user. Programming a detector "turn-on speed" and the "not-to-exceed" alert speed needs to be a very simple process. I haven't figured out a simple method of storing the I-75 Mitchell Ave. location and signal signature to be ignored. A cheap (free) way of measuring vehicle speed within 5 mph is the new core competency we need - isn't it?

		See, e.g., Decl. of Dan Kindel, Exhibit 2056, 2049, IPR2013-00203:  Ideas for 'Pro Model' Detector 8/23/96 DOK 103 Rules: No size, cost constraints IMPROVEMENT 1) Bigger antenna — improved sensitivity all bands x, K, Ka 2) LNA in front of μwave mixer " " " 3) 6 bit A/D in DSP " " " 4) Fundamental mix on K, Ka — improved sensitivity for K, Ka 5) 2nd Harmonic mix on Ka " " Ka 6) GPS system — Speed info: reduce falsing — block out door openers; reduce falsing No alert unless exceeding set speed Orr's Prior Invention therefore teaches suppression of an alert if near a predetermined position, which inherently means that an alert is generated if not near a predetermined position. To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions.

11pre (not asserted)	A method, executed by a device having a position and a velocity, of generating an alert to an incoming radar signal having a frequency and a signal strength, the method comprising the acts of:	*See* **1pre**.
11a	(a) detecting the incoming radar signal;	*See* **1a**.
11b	(b) determining the velocity of the device that detected the incoming radar signal;	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches "perform[ing] numerous driving experiments in which…velocity information were collected…" (*See* Orr Decl. ¶ 12). Orr's Prior Invention teaches "[m]eans for ignoring all Radar signals if vehicle speed is less than 15-25 MPH [and a] [m]eans for ignoring all Radar signals if vehicle speed is less than posted limits along pre-designated coordinates." (*See* Orr Decl. ¶ 15). *See, e.g.*, Orr Dep. at 134, 143-144, 171-180. *See, e.g.*, Orr Dep., Ex. 2 at p. 9:

Application of GPS to Police Radar Response Conditioning and Three Product Classes.

Even though an array of GPS technologies is available for Radar Detection applications, three relative product classes are envisioned. Class 1 is the least expensive and most primitive and is the combination of a Radar Detector with GPS receiver. Class 2 is a combination of the more expensive DGPS receiver pair with Detector. Class 3 is a Radar Detector coupled with another product that already provides GPS or DGPS based services.

The distinction between Class 1 and Class 2 service is better understood with the following operating scenario. Each day a driver passes a shopping center that uses X or K-Band Microwave Door openers. His detector faithfully detects these signals during each pass. The driver's Radar Detector is equipped with a GPS receiver and is able to identify its coordinates. As he passes the shopping center he hits the 'lockout' button on his detector. The detector stores the coordinates of his current location, and the frequency of the signal just detected into an internal non-volatile memory device. The following day the driver begins a new journey along the same path. At power up the radar detector begins an iterative task that involves the observation of its coordinates followed by a test to see if these coordinates are within a certain tolerance of any coordinates in its memory. As the journey proceeds, the detector will realize that it is within the tolerance range of the shopping center and prepare to reject any signals that are within a tolerance of the frequencies that were noted from the previous trip. Since Class 1 service is

See, e.g., Orr Dep., Ex. 34 at p. 2:

```
                WHILE LOC(2) > 128
                        LINE INPUT #2, v$
                        IF INSTR(v$, "$GPGLL") THEN
                                zlat = fnz(9): zlong = -fnz(22): Sr$ = v$
                                locked = 0
                                FOR I = 1 TO fidx
                                        za = ZLock(I, 1) - zlat: zB = ZLock(I, 2) -
zlong: zdist = SQR(za * za + zB * zB)
                                        IF zdist < .25 THEN locked = 1: Pindex = I
                                NEXT I
                        END IF
                        IF INSTR(v$, "$GPVTG") THEN I = INSTR(v$, "M"): zVelocity =
fnzz(I + 2)
                WEND
```

See, e.g., ORR000329 (4/2/96):

		Selectivity/Adjustability > * > Adjustable City next product [> GTS for $75 — trainable anti-X source Possible further product → — Speed-sensitive sensitivity * > [Optional] X-band false function 70% probability X-band false 30% [illegible] cop *See, e.g.*, ORR000463 at 466 (4/3/1996):

		Author: GBLAIR at CMI-MAIL Date: 4/3/96 9:36 AM Priority: Normal CC: TPERSZYK TO: BANDREWS TO: SORR Subject: Re: Integration Approach ------------------------------------ Message Contents ---------------- Steve: CMI entering the ETAK business just to get speed and position to silence a detector seems like a backwards move. Could we patent the concept of vehicle speed (not engine speed) muting and vehicle position muting and then work with the ETAK folks for a data link to our detectors? I believe that the new vehicle option and aftermarket volumes for ETAK systems over $500 is small. The rental car company commercial of the woman and her daughter locating her sister's new house way out in the boonies is the best use I can think of. Of course the sister with the new house could have picked up the other one and her niece at the airport. The hand held GPS market was extremely small at $1000. The new data says that units on promo at $200 sell well to pleasure boaters and hikers. Whatever we use for speed and position sensing needs to be transparent to the user. Programming a detector "turn-on speed" and the "not-to-exceed" alert speed needs to be a very simple process. I haven't figured out a simple method of storing the I-75 Mitchell Ave. location and signal signature to be ignored. A cheap (free) way of measuring vehicle speed within 5 mph is the new core competency we need - isn't it? To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art

		to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[f]urther, known position detection systems employ the known Global Positioning System (GPS) …" (Col. 1, Ln. 17-19). Hoffberg teaches that "[k]nown GPS mobile systems include memory to record location, time and event type, and some systems may be integrated with global information systems, to track path, speed, etc." (Col. 1, Ln. 23-26). Hoffberg teaches that "[t]he satellite-based location determination systems include satellites having signal transmitters to broadcast location information and control stations on earth to track and control the satellites." (Col. 2, Ln. 22-26). Hoffberg teaches that "[t]he Global Positioning System (GPS) is part of a satellite navigation system developed by the United States Defense Department under its NAVSTAR satellite program. A fully operational GPS includes up to 24 satellites . . ." (Col. 2, Ln. 29-32).
11c	(c) generating an alert if the velocity of the device is greater than a predetermined velocity;	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches "a velocity constraint concept being implemented in a radar detector having both GPS and radar detector functions." (*See* Orr Decl. ¶ 14). Orr's Prior Invention teaches "[m]eans for ignoring all Radar signals if vehicle speed is less than 15-25 MPH [and a]" and "[m]eans for ignoring all Radar signals if vehicle speed is less than posted limits along pre-designated coordinates." (*See* Orr Decl. ¶ 15). To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions.

11d	(d) determining the position of the device that detected the incoming radar signal; and	*See* **1b**.
11e	(e) comparing the position of the device that detected the incoming radar signal to a predetermined position.	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches that "[t]he software running in the laptop would generate alerts of received radar signals, but would suppress alerts of radar near a rejected GPS coordinate." (*See* Orr Decl. ¶ 11). Orr's Prior Invention teaches "[m]eans for ignoring all Radar signals if vehicle speed is less than 15-25 MPH [and a] [m]eans for ignoring all Radar signals if vehicle speed is less than posted limits along pre-designated coordinates." (Orr Decl., ¶ 15). Orr therefore teaches suppression of an alert if near a predetermined coordinate, which inherently means that an alert is generated if not near a predetermined coordinate, which further inherently means that a comparison between the position of the radar detector and the predetermined coordinate is made. To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions.
12	The method of claim 11 wherein the act of determining the velocity of the device includes receiving data from a plurality of satellites.	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches using "a Rockwell NavCard product which is a PCMCIA card having a fully integrated GPS receiver, and software tools for supporting the card." (*See* Orr Decl. ¶ 7). Orr's Prior Invention teaches "[t]he functions performed using the combined radar encounter and GPS tool included the following function: hitting the space bar on the laptop computer during use would store a current GPS coordinate as a 'rejected coordinate.'" (*See* Orr Decl. ¶ 11).

		Orr's Prior Invention teaches performing "numerous driving experiments in which GPS coordinates and velocity information were collected…" (*See* Orr Decl. ¶ 12). Orr's Prior Invention teaches: "The (GPS) system Is a worldwide constellation of 24 satellites and their ground stations. GPS receivers on earth use 'line of sight' information from these satellites as reference points to calculate positions accurate lo a matter of meters. Advanced forms of GPS actually enable measurements to within a centimeter. The Global Positioning System consists of three segments: a space segment of 24 orbiting satellites, a control segment that includes a control center and access to overseas commend stations, and a user segment, consisting of GPS receivers and associated equipment." (Orr Decl., Ex. B at 2). To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[f]urther, known position detection systems employ the known Global Positioning System (GPS) …" (Col. 1, Ln. 17-19). Hoffberg teaches that "[k]nown GPS mobile systems include memory to record location, time and event type, and some systems may be integrated with global information systems, to track path, speed, etc." (Col. 1, Ln. 23-26). Hoffberg teaches that "[t]he satellite-based location determination systems include satellites having signal transmitters to broadcast location information and control stations on earth to track and control the satellites." (Col. 2, Ln. 22-26). Hoffberg teaches that "[t]he Global Positioning System (GPS) is part of a satellite navigation system developed by the United States Defense Department under its NAVSTAR satellite program. A fully operational GPS includes up to 24 satellites . . ." (Col. 2, Ln. 29-32).

18pre (not asserted)	A radar detector for alerting an operator of a motor vehicle to an incoming police radar signal comprising:	*See* **1pre**.
18a	(a) a microprocessor;	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches "Microwave Receiver with supporting microprocessor or DSP." (Orr Decl., Ex. B at 2). Orr's Prior Invention teaches a "system involv[ing] a radar detector cabled (via fiber optics) to a laptop's COM port. When the detector encountered a radar signal sufficient for an alert, spectral information and the band of the encountered radar signal were recorded by the laptop computer, which also emitted an audible 'beep.'" (*See* Orr Decl. ¶ 4). *See, e.g.*, Orr Dep. at 128, 158. To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[m]any systems using handheld computers, having software and databases defining maps and running standard operating systems, have been coupled to GPS Smart Antennas." (Col. 6, Ln. 64-67).
18b	(b) a circuit coupled to the microprocessor for detecting	*See* **1a**.

	the incoming police radar signal; and	
18c	(c) a global positioning system receiver coupled to the microprocessor and operable to provide the microprocessor with data that indicates the position of the radar detector.	*See* **1b**.
24	The method of claim 1, further comprising: (d) generating the alert if the device is within the predetermined distance of the predetermined position and if either the signal strength of the incoming radar signal is greater than a predetermined signal strength or if the frequency of the incoming radar signal is not within a predetermined frequency range of a predetermined radar frequency.	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches: "[m]eans for ignoring all Radar signals if vehicle speed is less than 15-25 MPH [and a] [m]eans for ignoring all Radar signals if vehicle speed is less than posted limits along pre-designated coordinates." (*See* Orr Decl. ¶ 15). Orr's Prior Invention teaches: "Radar Detectors warn drivers of the use of police radar, and the potential for traffic citations if they are driving in excess of the speed limit. The FCC has allocated several regions of the spectrum for Police Radar as well as a variety of 'other' unrelated applications. Radar Detectors cannot tell the difference between many of these other devices and true Police Radar systems. As a result, the significance of a warning from a Radar Detector will decline as more non-Police Radar products are operated in this spectrum. Since the majority of these 'other' applications are stationary, Radar Detectors could ignore them if it knew their locations, and its own location during operation. The Global Positioning Satellite system, or GPS offers an electronic method for establishing current physical coordinates very accurately. This patent describes a new and better way to provide Radar Warning information to drivers by using the information from a GPS receiver to condition the response from a Radar Detector. The product will maintain a list of the coordinates of the known 'offenders' in nonvolatile memory. Each time a microwave or laser source is detected, It will compare its current coordinates to this list. Notification of the driver will take on a-variety of forms depending on the setup configuration." (*See* Orr Decl., Ex. B at Abstract).

		Orr's Prior Invention teaches that "[t]he software running in the laptop would generate alerts of received radar signals, but would suppress alerts of radar near a rejected GPS coordinate." (*See* Orr Decl. ¶ 11). Orr's Prior Invention therefore teaches suppression of an alert if near a predetermined position, which inherently means that an alert is generated if not near a predetermined position. Orr's Prior Invention teaches "generating an alert if at least one characteristic is not similar to a predetermined characteristic." (*See* Orr Decl. ¶ 13). *See, e.g.*, Orr Dep., Ex. 2 at pp. 9-10: **Application of GPS to Police Radar Response Conditioning and Three Product Classes.** Even though an array of GPS technologies is available for Radar Detection applications, three relative product classes are envisioned. Class 1 is the least expensive and most primitive and is the combination of a Radar Detector with GPS receiver. Class 2 is a combination of the more expensive DGPS receiver pair with Detector. Class 3 is a Radar Detector coupled with another product that already provides GPS or DGPS based services. The distinction between Class 1 and Class 2 service is better understood with the following operating scenario. Each day a driver passes a shopping center that uses X or K-Band Microwave Door openers. His detector faithfully detects these signals during each pass. The driver's Radar Detector is equipped with a GPS receiver and is able to identify its coordinates. As he passes the shopping center he hits the 'lockout' button on his detector. The detector stores the coordinates of his current location, and the frequency of the signal just detected into an internal non-volatile memory device. The following day the driver begins a new journey along the same path. At power up the radar detector begins an iterative task that involves the observation of its coordinates followed by a test to see if these coordinates are within a certain tolerance of any coordinates in its memory. As the journey proceeds, the detector will realize that it is within the tolerance range of the shopping center and prepare to reject any signals that are within a tolerance of the frequencies that were noted from the previous trip. Since Class 1 service is

		Response Options that Take Advantage of GPS Information There are two methods by which the Radar Detector can acquire the coordinates of unwanted sources. One method is for the user to push a 'lock out' button when he believes he is in proximity to a source that he no longer wants to detect. A second method is to have this information be supplied from another source and already be available in stored memory. In this case an external computer must previously send these coordinates to the Radar Detector which then would transfer them to its non-volatile memory. This second method will be discussed later. A number of different operational "lock out" conditions are supported by the software. These cases are itemized as follows: 1. Coordinate match, frequency match, no sound, some visual 2. Coordinate match, no sound, some visual 3. Coordinate match, no sound, minimal visual In case 1, when the Radar Detector enters a locked region denoted by a coordinate match (+- tolerance), it will compare the frequencies of any signals received with those that were present when the lockout was instantiated by the user. If the observed frequency does not match the list of stored frequencies for this region, it is probably being generated by a new source that was not present during the previous lockout. This is likely to occur if Police Radar is being operated in proximity to the lockout region. Consequently the Radar Detector will announce that a new threat is perceived both audibly and visually. If the observed frequency does match one of the members of the list, the detector will produce no audible alert. However it will still produce a visual display indicating detection. The visual display informs the user that the unit is in a lock out region as well as when signals are actually being detected within that region. If the source is determined to be in the "Hazard Signal" category, the Hazard or SWS information will still be displayed but with no audio. The scope of the lockout can be expanded to include more frequencies by hitting the lock out button again. This will occur if the button is depressed while the detector is in audible alert in a previously designated lockout region. The user can also optionally terminate the lock out condition while in the area. *See, e.g.*, Orr Dep., Ex. 34 at p. 4:

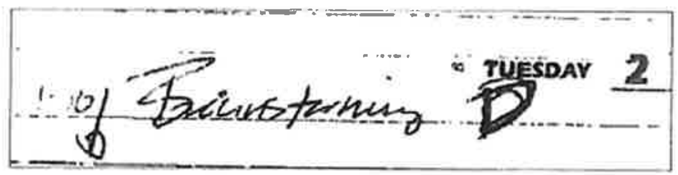
<table>
<tr>
<td></td>
<td></td>
<td>
<pre>
 a$ = INKEY$
IF a$ = CHR$(27) THEN END
IF a$ = "*" THEN dhistory = 1
IF (a$ = " ") THEN page2 = -1 ELSE page2 = 0

        xdetect = flaga AND 1: IF xdetect THEN xdetect = -1
        kdetect = flaga AND 2: IF kdetect THEN kdetect = -1: xdetect = 0
        kadetect = flaga AND &HC: IF kadetect THEN kadetect = -1
        kaouter = flaga AND 8
        kainner = flaga AND 4

train = lcount AND 32: IF train THEN train = -1
emergency = lcount AND 64: IF emergency THEN emergency = -1
roadhaz = lcount AND 128: IF roadhaz THEN roadhaz = -1

anydetect = xdetect OR kdetect OR kadetect OR hotkdetect OR hotxdetect
</pre>
See, e.g., Orr Dep., Ex. 34 at p. 2:
<pre>
                WHILE LOC(2) > 128
                        LINE INPUT #2, v$
                        IF INSTR(v$, "$GPGLL") THEN
                                zlat = fnz(9): zlong = -fnz(22): Sr$ = v$
                                locked = 0
                                FOR I = 1 TO fidx
                                        za = ZLock(I, 1) - zlat: zB = ZLock(I, 2) -
zlong: zdist = SQR(za * za + zB * zB)
                                        IF zdist < .25 THEN locked = 1: Pindex = I
                                NEXT I
                        END IF
                        IF INSTR(v$, "$GPVTG") THEN I = INSTR(v$, "M"): zVelocity =
fnzz(I + 2)
                WEND
</pre>
See, e.g., ORR000329 (4/2/96):
</td>
</tr>
</table>

		Selectivity/Adjustability * > Adjustable Cty next product [> GPS for #75 – trainable anti-X source Possible further product → – Speed-sensitive sensitivity * > Optional X-band false function 70% probability X-band false 30% chance cop *See, e.g.*, Decl. of Beth Andrews, Ex. 2053, 2050, 2051, IPR2013-00203:

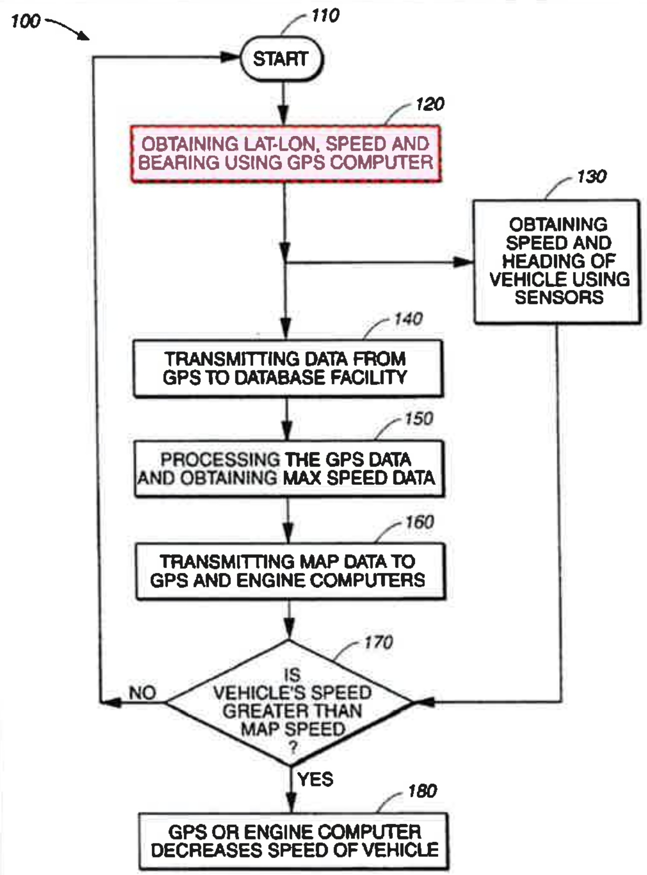
		2. In or about 1996, I was involved with product planning at CMI. At that time, it was important to marketing to have the CMI technical staff develop a product to deal with the "falsing" issue, i.e., that solved the false alarm door opener problem wherein a radar detector would render an alert from a non-police radar emission. In other words, in 1996 CMI wanted to have a product that had less "falsing" than other brands so we had a real need to figure out a way to deal with "falsing." 3. Attached hereto as Exhibit 2050 is a true and correct copy of pages from my 1996 "QUAD" calendar. More specifically, as shown therein and in a true and correct excerpt therefrom that is reproduced herein, at or about 1 p.m. (EDT), Tuesday, April 2, 1996, a "Brainstorming" meeting with  Greg Blair, Steve Orr, Tom Perszyk, and myself was held in Conference Room D at CMI. During that meeting, I recorded notes on a whiteboard which had the option to send those notes to a printer. Attached hereto as Exhibit 2051 is a true

		and correct copy of the printout from the whiteboard from that brainstorming session. The printout includes my following handwritten notes: next product > GPS for #75 — trainable auto-X source Thus, during this brainstorming session, I recorded that the "Next Product" would include "GPS" and that it would have a "trainable auto-X source." Exhibit 2051. In other words, the goal was to have a device which one could train, by using Global Positioning System ("GPS") data, to automatically cancel ("X") false radar sources, i.e., sources of radar from other than actual police activities. *Id.* To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[r]adar detectors typically are employed to detect operating emitters of X (10.5 GHz), K (25 GHz) and Ka (35 GHz) radar emissions from traffic control devices or law enforcement personnel for detecting vehicle speed by the Doppler effect." (Col. 19, Ln. 16-20).

		Hoffberg teaches that "[i]t is noted that, in the case of "false alarms", the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored "false alarm" event, and suppress an alarm or modify the alarm signal. Thus, information stored in memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Col. 29, Ln. 8-13). Hoffberg teaches that "[i]n a preferred embodiment, an event sensor is provided, such as a police radar and laser speed detection equipment system (e.g., "radar detector") is provided." (Col. 33, Ln. 10-12). Hoffberg teaches that "[r]adar detectors typically are employed to detect operating emitters of X (10.5 GHz), K (25 GHz) and Ka (35 GHz) radar emissions from traffic control devices or law enforcement personnel for detecting vehicle speed by the Doppler effect." (Col. 19, Ln. 16-20). Hoffberg teaches that "[i]t is noted that, in the case of "false alarms", the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored "false alarm" event, and suppress an alarm or modify the alarm signal. Thus, information stored in memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Col. 29, Ln. 8-13). Hoffberg teaches that "[i]n a preferred embodiment, an event sensor is provided, such as a police radar and laser speed detection equipment system (e.g., "radar detector") is provided." (Col. 33, Ln. 10-12).
30	The radar detector of claim 18, wherein the global positioning system receiver is operable to provide the microprocessor with data that indicates the heading of the radar detector:	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches using "a fully integrated GPS receiver, and software tools for supporting [a PCMCIA card]." (*See* Orr Decl. ¶ 7). Orr's Prior Invention teaches "[t]he functions performed using the combined radar encounter and GPS tool included the following function: hitting the space bar on the laptop computer during use would store a current GPS coordinate as a 'rejected coordinate.'" (*See* Orr Decl. ¶ 11). Orr's Prior Invention teaches performing "numerous driving experiments in which GPS coordinates and velocity information were collected…" (*See* Orr Decl. ¶ 12).

		To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[k]nown GPS mobile systems include memory to record location, time and event type, and some systems may be integrated with global information systems, to track path, speed, etc." (Col. 1, Ln. 23-26). Hoffberg teaches that "[t]hese applications require a computer to store and process data, retain databases, perform calculations, display information to a user, and take input from a user entry. For instance, the user may need to store a map database, display a map, add attributes to features on the map, and store these attributes for geographical information. The user may also need to store and display locations or calculate range and bearing to another location." (Col. 3, Ln. 55-62). Hoffberg teaches that "GPS is also used for personal travel such as hiking, biking, horseback riding, yachting, fishing, driving in personal cars, and other travel activities." (Col. 4, Ln. 5-7). Hoffberg teaches that "In one embodiment, communications devices are installed in automobiles. Mobile GPS receivers in the vehicles provide location information to the communications devices. These GPS receivers may be integral or separate from the communications devices. Event detectors, such as police radar and laser (LIDAR) speed detectors, traffic and weather condition detectors, road hazard detectors (pot holes, debris, accidents, ice, mud and rock slides, drunk drivers, etc.), traffic speed detectors (speedometer reading, sensors for detecting speed of other vehicles), speed limits, checkpoints, toll booths, etc., may be provided as inputs to the system, or appropriate sensors integrated therein." (Col. 21, Ln. 61 - Col. 22, Ln. 6). Hoffberg teaches that "According to one embodiment of the invention, the functions are integrated into a single device, including police radar and LIDAR detectors, user output, memory, central processor, GPS receiver and RF transceiver. Accessory inputs and outputs may also be provided, including means for alphanumeric, graphic (still or

		motion) or voice message communication between communications devices… By integrating functions, efficiencies are achieved. Thus, a single central processor, memory, program store and user interface will suffice for all functions. Further, the power supply and housing are also consolidated. While GPS and telecommunication antennas will be distinct, other portions of the system may also be integrated." (Col. 24, Ln. 28-62). Hoffberg teaches that "In an alternate embodiment, the GPS receiver includes its own processor and outputs coordinate positions, e.g., Cartesian coordinates, latitude and longitude, to the communications device processor 6, e.g., through a serial port or data bus, such as PC card, Universal serial Bus (USB), Firewire (IEEE 1394), peripheral connect interface (PCI), or other bus, such as that present within an automobile for communication of signals between subsystems." (Col. 26, Ln. 47-54). Hoffberg teaches that "The GPS Smart Antenna system includes a GPS receiver antenna to receive GPS satellite signals from GPS satellite transmitters, a GPS frequency downconverter to down convert the approximately 1.575 GHz frequency of the L1 GPS Satellite signals to a lower frequency (LF) Signal that is suitable for digital processing, and to issue the LF to a GPS processor. The GPS processor demodulates and decodes the LF signal and provides location information for at least one of (i) location of the GPS antenna, (ii), GPS satellite pseudoranges between the GPS satellites and the GPS antenna, (iii) rate of change of location of the GPS antenna, (iv) heading of the GPS antenna, and (v) time to a GPS interface." (Col. 36, Ln. 49-61).

		 *FIG._4* Valentine teaches "A police radar signal detector detects and monitors radar signals from up to nine (9) radar sources until a detected radar signal has not been redetected for a given number of detector operations, or spectrum sweeps, or until a detected signal has been displaced by a higher priority radar signal. In the police radar signal detector of the present invention, a user of the detector is advised not only of the presence of

		detected radar signals, the frequency band of detected radar signals and the relative field strength of the signals but also of the number of different radar signal sources which are transmitting signals toward the user's motor vehicle. The information provided to the user for the frequency band of detected radar signals and the relative field strength of the signals is for the highest priority radar signal detected if more than one signal has been detected and is being monitored by the detector of the present invention. In addition, the directions of radar sources are determined and the user of the detector is advised of the direction or directions, front, side and rear, of origin of radar sources transmitting signals toward the user's motor vehicle. If sources are oriented at more than one direction relative to the user's motor vehicle, an indicator is illuminated to advise the user of all the directions of origin with the indicator for the direction of origin of the highest priority signal being flashed to so advise the user of the detector. Further, since multiple radar signals can be detected, each time a new radar signal is detected, a distinctive memo alarm is activated to alert the user to the presence of a new radar signal source." (Valentine, Abstract).
45pre	A radar detector for alerting an operator of a motor vehicle to an incoming radar signal comprising:	*See* **18pre**.
45a	(a) a circuit operable to detect an incoming radar signal; and	*See* **1a**.
45b	(b) a microprocessor operable to disable an alert to the incoming radar signal based at least in part upon the position of the radar detector.	*See* **18a**.
49	The radar detector of claim 45, wherein the microprocessor is operable to disable the alert based at least	Orr's Prior Invention expressly or inherently discloses this claim limitation.

	in part upon the signal strength of the incoming radar signal.	Orr's Prior Invention teaches that "[w]hen the detector encountered a radar signal sufficient for an alert, spectral information and the band of the encountered signal were recorded, which also emitted an audible 'beep'." (*See* Orr Decl. ¶ 4). Orr's Prior Invention teaches a "[m]eans for ignoring all Radar signals if vehicle speed is less than 15-25 [and a] MPH [m]eans for ignoring all Radar signals if vehicle speed is less than posted limits along pre-designated coordinates." (*See* Orr Decl. ¶ 15). Orr's Prior Invention teaches that "Radar Detectors warn drivers of the use of police radar, and the potential for traffic citations if they are driving in excess of the speed limit. The FCC has allocated several regions of the spectrum for Police Radar as well as a variety of 'other' unrelated applications. Radar Detectors cannot tell the difference between many of these other devices and true Police Radar systems. As a result, the significance of a warning from a Radar Detector will decline as more non-Police Radar products are operated in this spectrum. Since the majority of these 'other' applications are stationary, Radar Detectors could ignore them if it knew their locations, and its own location during operation. The Global Positioning Satellite system, or GPS offers an electronic method for establishing current physical coordinates very accurately. This patent describes a new and better way to provide Radar Warning information to drivers by using the information from a GPS receiver to condition the response from a Radar Detector. The product will maintain a list of the coordinates of the known 'offenders' in nonvolatile memory. Each time a microwave or laser source is detected, it will compare its current coordinates to this list. Notification of the driver will take on a variety of forms depending on the setup configuration." (*See* Orr Decl., Ex. B at Abstract). Orr's Prior Invention teaches an "Expert Meter" mode in which detailed information regarding received warning signals are displayed on display 38 of the GPS enabled radar detector, as described in U.S. Pat. No. 5,668,554, such that "by considering the information provided in Expert Meter Mode, the user can more intelligently decide whether to engage the lockout switch." (Orr Decl., Ex. B at 11-12). Orr's Prior Invention teaches that: • "U.S. Pat. No, 4,818,997 describes an analog indicator 108 which indicates the signal strength of a detected signal." ('554 Pat., Col. 1, Ln. 35-37).

		• "[s]till another type of radar detector display apparatus is described in U.S. Pat. No. 5,146,226, wherein the display apparatus has a signal strength LED bar graph 112E, a digital display 112A indicating the number of detected incoming signals, and a LED decimal point 112D which may be illuminated, turned off, or flashed to indicate the radar band of the incoming signal." ('554 Pat., Col, 1, Ln, 42-47). • "[c]onventional radar detector displays indicate the radar band and signal strength of a detected signal." ('554 Pat., Col. 1, Ln. 65-66). • "[b]ecause signals may be detected in any one of a plurality of predefined frequency bands, such as the X band, the K band, the Ka band, or the Laser band, the display is scaled for each detected signal to correspond to the frequency band in which the signal is found... Advantageously, the relative amplitude of the detected signal may also be indicated via the height of the graphical characters." ('554 Pat., Col.2, Ln.24-34). • "[t]he relative amplitude of the detected signal is also stored in microprocessor 106 upon detection and may be indicated by adjusting the vertical height of the symbol 14, i.e., by illuminating more or less rows of dots." ('554 Pat., Col. 4, Ln. 47-51). • "U.S. Pat. No. 5,068,663 discloses a radar detector which utilizes an amplitude detection scheme to detect radar signals." ('007 Pat., Col. 2, Ln. 16-18). • "[d] elected amplitude signals must persist for a minimum period of time before the microprocessor 128 performs signal verification." ('007 Pat., Col. 2, Ln. 22-24). • "[t]he NEW ESCORT product did, however, take advantage of spectral processing techniques by measuring the spectral content of portions of output data from the FM demodulator collected during a sweep. A detection criterion was chosen to see if the amplitude of the s-curve component exceeded a threshold." ('007 Pat., Col. 7, Ln. 7-12).

		• "[t]he detection criterion is chosen to see if the amplitude of the fundamental component in successive windows exceeds a threshold." ('007 Pat., Col. 7, Ln. 27-29). • "[s]ensitivity is improved for X & K band signals by applying a detection method called "Weaksignal K band processing." After the previous detection methods have been completed, the strongest pair in the sweep is located. The amplitude of the pair need not exceed the detection threshold. The energy present in the two peaks is accumulated. If the pair moves, the accumulator is set to zero. If the pair remains in the same position over a period of sweeps, the accumulated value will exceed the weaksignal threshold. An X band alert is always issued in this event." ('007 Pat., Col. 24, Ln. 63- 68; Col. 25, Ln. 1-5). *See, e.g.*, Orr Dep. at 44-48, 130, 134, 170. *See, e.g.*, Ex. 2073, IPR2013-0203 at ¶ 11: 11. Communication circuitry and an interface connector. e.g.. a fiber optics cable. serial cable. and the laptop's COM port allowed information to be stored in the laptop's hard drive. The communication circuitry and arrangement of the system allowed the system when configured with one receiver. to use or

		receive signal information on other geographic locations that were gathered by another police warning receiver. In other words, one of several Passport 3100 and/or 3200 Radar Detectors could be used to collect radar information. In yet another embodiment, an ESCORT® Passport 1000 Laser Detector could be plugged into, as shown below, the Passport 3200 Radar Detector in order to detect electromagnetic signals that were carried in the visible or infrared spectrum. 

		See, e.g., Ex. 2077, IPR2013-0203: Passport 3100 WideBand protects you from radar like no other detector can. Unlike ordinary three-band detectors, Passport 3100 WideBand detects every type of radar currently in use today X, K, Ka (including Photo radar and Stalker) – Passport 3100 WideBand detects them all easily and accurately. All wide-band detectors are not created equal. Some actually "miss" part of the broadcast signal at selected frequencies – like a radio that can't pick up every station. But Passport 3100 WideBand doesn't miss a thing. If radar is there, you'll know it instantly. Features: • Long range radar detection • Anti-falsing circuitry • LED meter displays signal strength • Mute button silences radar alert tone • Variable radar tones let you know which type of radar is in use • Visual and audible alert system • City/highway switch • Digital Signal Processing • 30-day money back guarantee Passport 3100 WideBand: radar detection at its best. **Passport® 3100 WideBand $179** plus shipping & handling. Ohio res. add 6% tax. ours, 7 days a week: :33-3487 mer Service: 1-800-543-1608 *at a special price!* *and laser protection.* *uy both a Passport 1000* *100 WideBand for only* *!! That's less than others* *and detector alone!* *mber 31, 1992.* **rs for $249** io residents add 6% sales tax. ipping Available duct support and more. scortPlus Club® ORT nt 000000 -Ertel Road Ohio 45249 ORT tive Edge™ Orr's Prior Invention teaches that "[t]he software running in the laptop would generate alerts of received radar signals, but would suppress alerts of radar near a rejected GPS coordinate." (*See* Orr Decl. ¶ 11).

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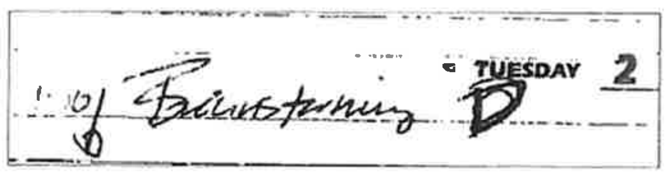
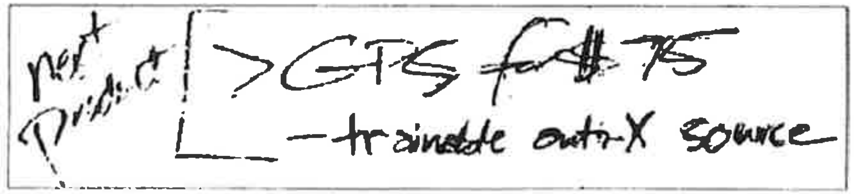
		Orr's Prior Invention therefore teaches suppression of an alert if near a predetermined position, which inherently means that an alert is generated if not near a predetermined position. Orr's Prior Invention teaches "generating an alert if at least one characteristic is not similar to a predetermined characteristic." (*See* Orr Decl. ¶ 13). *See, e.g.*, ORR000329 (4/2/96): Selectivity/Adjustability * > Adjustable City next product > GPS for #75 – trainable anti-X source Possible further product – Speed-Sensitive Sensitivity * > Optional X-band false function 70% probability X-band false 30% chance cop

		See, e.g., Decl. of Beth Andrews, Ex. 2053, 2050, 2051, IPR2013-00203: 2. In or about 1996, I was involved with product planning at CMI. At that time, it was important to marketing to have the CMI technical staff develop a product to deal with the "falsing" issue, i.e., that solved the false alarm door opener problem wherein a radar detector would render an alert from a non-police radar emission. In other words, in 1996 CMI wanted to have a product that had less "falsing" than other brands so we had a real need to figure out a way to deal with "falsing." 3. Attached hereto as Exhibit 2050 is a true and correct copy of pages from my 1996 "QUAD" calendar. More specifically, as shown therein and in a true and correct excerpt therefrom that is reproduced herein, at or about 1 p.m. (EDT), Tuesday, April 2, 1996, a "Brainstorming" meeting with  Greg Blair, Steve Orr, Tom Perszyk, and myself was held in Conference Room D at CMI. During that meeting, I recorded notes on a whiteboard which had the option to send those notes to a printer. Attached hereto as Exhibit 2051 is a true

		and correct copy of the printout from the whiteboard from that brainstorming session. The printout includes my following handwritten notes:  Thus, during this brainstorming session, I recorded that the "Next Product" would include "GPS" and that it would have a "trainable auto-X source." Exhibit 2051. In other words, the goal was to have a device which one could train, by using Global Positioning System ("GPS") data, to automatically cancel ("X") false radar sources, i.e., sources of radar from other than actual police activities. *Id.* *See, e.g.,* Nov. 19, 2019 Kuhn Depo, pp. 28. *See, e.g.* Nov. 6, 2019 Fleming Depo, pp. 190-192, 206-207. To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[r]adar detectors typically are employed to detect operating emitters of X (10.5 GHz), K (25 GHz) and Ka (35 GHz) radar emissions from traffic

		control devices or law enforcement personnel for detecting vehicle speed by the Doppler effect." (Col. 19, Ln. 16-20). Hoffberg teaches that "In one embodiment, communications devices are installed in automobiles. Mobile GPS receivers in the vehicles provide location information to the communications devices. These GPS receivers may be integral or separate from the communications devices. Event detectors, such as police radar and laser (LIDAR) speed detectors, traffic and weather condition detectors, road hazard detectors (pot holes, debris, accidents, ice, mud and rock slides, drunk drivers, etc.), traffic speed detectors (speedometer reading, sensors for detecting speed of other vehicles), speed limits, checkpoints, toll booths, etc., may be provided as inputs to the system, or appropriate sensors integrated therein." (Col. 21, Ln. 61 - Col. 22, Ln. 6). Hoffberg teaches that "According to one embodiment of the invention, the functions are integrated into a single device, including police radar and LIDAR detectors, user output, memory, central processor, GPS receiver and RF transceiver. Accessory inputs and outputs may also be provided, including means for alphanumeric, graphic (still or motion) or voice message communication between communications devices… By integrating functions, efficiencies are achieved. Thus, a single central processor, memory, program store and user interface will suffice for all functions. Further, the power supply and housing are also consolidated. While GPS and telecommunication antennas will be distinct, other portions of the system may also be integrated." (Col. 24, Ln. 28-62). Hoffberg teaches that "In an alternate embodiment, the GPS receiver includes its own processor and outputs coordinate positions, e.g., Cartesian coordinates, latitude and longitude, to the communications device processor 6, e.g., through a serial port or data bus, such as PC card, Universal serial Bus (USB), Firewire (IEEE 1394), peripheral connect interface (PCI), or other bus, such as that present within an automobile for communication of signals between subsystems." (Col. 26, Ln. 47-54). Hoffberg teaches that "[i]t is noted that, in the case of "false alarms", the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored "false alarm" event, and suppress an alarm or modify the alarm signal. Thus, information stored in

		memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Col. 29, Ln. 8-13). Hoffberg teaches that "[i]n a preferred embodiment, an event sensor is provided, such as a police radar and laser speed detection equipment system (e.g., "radar detector") is provided." (Col. 33, Ln. 10-12). Valentine '951 teaches that "This need is met by the police radar detector of the present invention which detects and monitors multiple radar sources. In the illustrated embodiment, up to nine (9) radar sources are monitored by the detector, which continues to monitor up to nine (9) detected radar signals until a detected signal has not been redetected for a given number of detector operations, or spectrum sweeps, or until a detected signal has been displaced by a higher priority radar signal. In the police radar detector of the present invention, a user of the detector is advised not only of the presence of detected radar signals, the frequency band of detected radar signals and the relative field strength of the signals but also of the number of different radar signal sources which are transmitting signals toward the user's motor vehicle. The information provided to the user for the frequency band of detected radar signals and the relative field strength of the signals is for the highest priority radar signal detected if more than one signal has been detected and is being monitored by the detector of the present invention." (Valentine, Col. 2, Ln. 10-30) Valentine '951 teaches that "The step of alerting an operator of a motor vehicle using the radar signal detector of the direction of at least one source of detected radar signals may comprise lighting a corresponding indicator light. When radar signal sources are detected as originating from more than one direction, the step of alerting an operator of a motor vehicle using the radar signal detector of the direction of origin of at least one source of radar signals may comprise: blinking a corresponding indicator light for the direction of a source of a detected radar signal having a highest priority; and, lighting a corresponding indicator light for each additional detected radar signal originating from a direction other than the direction of the highest priority source. Preferably, the indicated directions of origin of detected radar signals are front, side and rear of the motor vehicle." (Valentine, Col. 4, Ln. 45-60). Valentine '951 teaches that "To keep track of multiple potential threats, the microprocessor 110 maintains an alarm table 300, see FIG. 9, for long term processing

		of up to nine (9) detected radar signals. Information regarding each detected signal is logged into the alarm table 300 on each spectrum scan." (Valentine, Col. 9, Ln. 18-24).

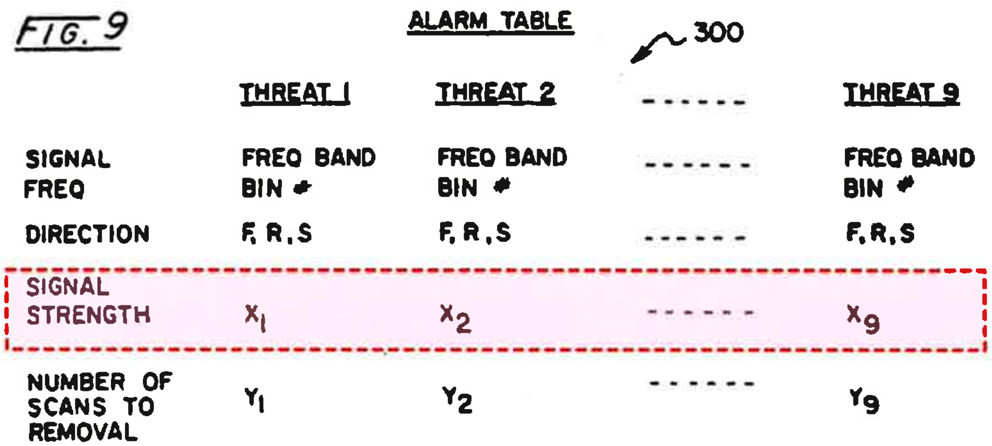


FIG. 9

ALARM TABLE

300

	THREAT 1	THREAT 2	------	THREAT 9
SIGNAL FREQ	FREQ BAND BIN #	FREQ BAND BIN #	------	FREQ BAND BIN #
DIRECTION	F, R, S	F, R, S	------	F, R, S
SIGNAL STRENGTH	X_1	X_2	------	X_9
NUMBER OF SCANS TO REMOVAL	Y_1	Y_2	------	Y_9

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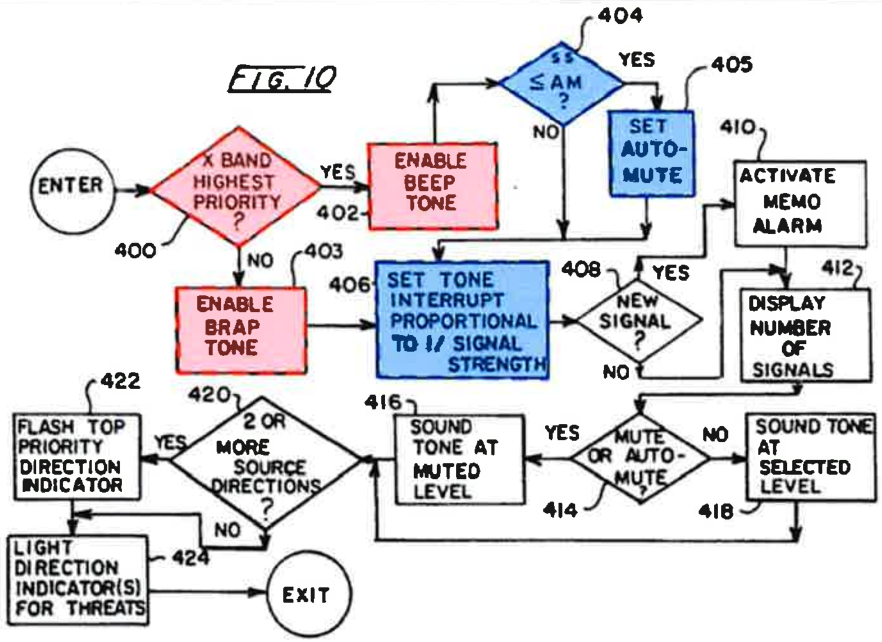

Valentine '951 teaches that "Since multiple radar signals are detected, each time a new radar signal is detected, a distinctive memo alarm is activated to alert the user to the presence of a new radar signal source. Further, to reduce operator annoyance, each time the detector is muted, all radar signals which have been detected at that time are marked as muted and are sounded only at a reduced volume. The muted marking of a detected radar signal is removed only when the radar signal is not detected for a period of time. Thus, if a signal comes and goes due to terrain or otherwise, it remains muted unless it is unmarked and detected thereafter as a new radar signal. Such operation can be used even for detectors which do not alert an operator of multiple radar sources since it prevents reinstatement of full volume alerting signals for such signals." (Valentine, Col. 2, Ln. 43-58)

Valentine '951 teaches that "To reduce the annoyance of extended sounding of the alarm tone, the operator of the motor vehicle can operate a momentary make mute switch 140 which switches the radar detector 100 to a mute state to thereby reduce the

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		alarm tone from an initial alarm volume level determined by an operator controlled main alarm volume control 142 to a muted alarm volume level which is reduced relative to the unmuted alarm volume level. Preferably, the volume of the muted alarm tone is determined by a muted output volume control 144. The muted output volume control 144 permits the operator to select a percentage of the unmuted volume level as the volume level of the muted alarm tone with the minimum muted alarm tone volume level being a factory preset level beneath which the signal level cannot be reduced. Thus, when a signal is first detected, the appropriate alarm signal is emitted at an initial selectable volume level which can then be muted by the operator of the vehicle. Once the detector 100 has entered the mute state, the mute state remains until no radar signals are being detected or monitored or the radar detector 100 is turned off and back on." (Valentine, Col. 12, Ln. 8-29).
50	The radar detector of claim 45, wherein the microprocessor is operable to enable the alert based at least in part upon the signal strength of the incoming radar signal.	*See* **49**.

EXHIBIT B

**Exhibit B-2: Invalidity Chart of U.S. Patent No. RE40,653
in view of Knowledge, Use, and Invention by Steven Orr ("Orr's Prior Invention")**

Orr's Prior Invention was in conceived around 1988 and reduced to practice no later than 1996. Alternatively, Orr's Prior Invention was diligently reduced to practice no later than March 29, 1999. Alternatively, Orr's Prior Invention was diligently reduced to practice no later than June 6, 1999. Orr's Prior Invention was not abandoned, suppressed, or concealed and resulted in U.S. Provisional App. Nos. 60/139,097, 60/145/394, PCT/US00/16410, U.S. Patent No. 6,670,905, and U.S. Pat. Pub. No. 2003/0218562. Therefore, Orr's Prior Invention is available as prior art at least under 35 U.S.C. §§ 102(a), 102(b), 102(f), 102(g), 103, etc.

Around 1988, when interviewing with Cincinnati Microwave ("CMI"), Steven Orr conceived of the patented idea for using upcoming technology such as GPS measurement to enhance the company's police radar detectors. Around 1992-1993, Mr. Orr began collecting field data from stationary sources that were not police radar sources to research his idea. Around 1995-1996, Mr. Orr attended a brainstorming meeting with Beth Andrews, Greg Blair, and others to discuss radar detector enhancements related to false alarms, including using GPS. The discussion included vehicle speed and vehicle position muting of radar alerts. Mr. Orr began evaluating GPS technology to figure out how to incorporate it in radar detector products in an affordable way. He purchased one of the first cost-effective GPS receivers, a Rockwell PCMCIA card, to integrate into his data collection system in order to collect actual location information with the signal source data. His next step was to create a prototype for demonstration. The laptop would report radar signals from an off-the shelf radar detector, and if the user hit the space bar at a certain location, the system would mute the audible alarm and store the location to disk. When he returned to the same location, it would not report the signal. In order to demonstrate the speed-based constraint, the prototype also had functionality to determine whether the system was traveling above or below a certain speed. After establishing in 1996 that the system could mute an alert based on location or vehicle speed, Mr. Orr continued his research towards developing a GPS-enhanced radar detector at a price and performance that would be acceptable to consumers, including continued field testing and data collection. He continued his effort in 1998 on behalf of Escort after CMI's bankruptcy. In early 1999, Mr. Orr began drafting a disclosure for a provisional patent application. He completed the document no later than March 29, 1999 and sent it to Escort's patent attorneys, who prepared and filed the disclosure in U.S. Provisional App. Nos. 60/139,097 on June 6, 1999. *See* Dep. of Steve Orr ("Orr Dep.") (Oct. 18, 2019) and exhibits cited therein; *see* Dep. of Thomas Humphrey (Oct. 30, 2019) and exhibits cited therein; *see* Dep. of Hoyt Fleming (Nov. 6, 2019) and exhibits cited therein; *see* Dep. of John Kuhn (Nov. 19, 2019) and exhibits cited therein.

In addition to the foregoing patents, patent applications, publications, depositions, and the exhibits cited therein, Uniden intends to rely upon at least:

- ORR000001-ORR001680;

- Fleming0021064;
- All physical exhibits maintained by Escort and made available to Uniden for inspection;
- Prosecution histories of U.S. Appl. Nos. 09/889,656; 10/396,881; 11/468,196; 12/195,147; 14/013,623; 14/727,610, including but not limited to Orr Dep., Ex. 1, Second Declaration of Steven K. Orr under 37 C.F.R. 1.131 (ESCT-0000132378-132386, UNIDEN_0070445-70461) ("Orr Decl.");
- U.S. Pat. Pub. No. 2003/0218562, filed on March 25, 2003, and International Application Pub. No. WO 00/77539, filed on June 14, 2000, both having a priority date of June 14,1999, and provisional applications filed by Mr. Orr on June 14,1999 and on July 23, 1999;
- U.S. Pat. Nos. 5,305,007, filed on April 13, 1993, and 5,668,554, filed on September 23, 1996;
- *Fleming v. Escort*, 774 F. 3d 1371 (Fed. Cir. 2014), including all statements, briefs, pleadings, declarations, contentions, testimony, discovery responses, evidence, hearing transcripts, or other submissions during the appeal and underlying litigation: *Hoyt A. Fleming v. Escort Inc.*, Case No. l:09-cv-00105-BLW (D. Idaho) (the "Fleming v. Escort" litigation), proffered by Escort regarding Orr's Prior Invention and reduction to practice, including, *inter alia*:
    - Trial and deposition testimony in the Fleming v. Escort litigation regarding Orr's Prior Invention and reduction to practice;
    - Escort's verified discovery responses in the Fleming v. Escort litigation regarding Orr's Prior Invention and reduction to practice;
    - Pleadings, briefs, and/or other submissions (including any attachments and/or exhibits) regarding Orr's Prior Invention and reduction to practice submitted by or on behalf of Escort;
    - Trial exhibits in the Fleming v. Escort litigation (whether admitted or not) regarding Orr's Prior Invention and reduction to practice;
    - Mr. Orr's declarations in connection with the Fleming v. Escort litigation as well as IPR2013-00203 and IPR2013-00240 (ESCT-0000026331-26338, ESCT-0000116054-117319, ESCT-0000132378-132386,

ORR000005-74, UNIDEN_0007851-7919, UNIDEN_0012296-12366) which are incorporated herein by reference;

- Defendant Escort's Patent Invalidity Contentions in the Fleming v. Escort litigation, including Exhibits 1, 2, 8, 17, 18, 23, 32, 33, 38, B-11 to B-16, B-21 to B-25, B-31 to B-37; and

- Escort's supplemental interrogatory responses in the Fleming v. Escort litigation detailing the supporting evidence, which were filed with the Court (Dkt. Nos. 142-17 and 142-18) in that litigation, and Escort's expert's invalidity expert report further detailing the supporting evidence, which were filed with the Court (Dkt. No. 98-3) in that litigation, both of which cite the following documents produced to Fleming by Escort in that litigation and which are herein incorporated by reference; ESC 1-ESC 35; ESC 1080-ESC 1153; ESC 2000-ESC2070; ESC 2505-2529; ESC 2576-ESC 5365, ESC 5595-ESC 5810, ESC 14168, ESC 14169, ESC 14667-ESC 14681, ESC 14781-ESC 14861, ESC 15001-ESC 15208.

- Escort's defense of *K-40 v. Escort*, IPR2013-00203 and IPR2013-00240, including all statements, declarations, response briefs, contentions, testimony, exhibits, evidence, and other submissions proffered by Escort regarding Orr's Prior Invention and reduction to practice, including, inter alia, Mr. Orr's trial and deposition testimony, including any exhibits used therewith, declarations and exhibits submitted by Mr. Orr, and any other declarations and exhibits submitted or relied upon by Escort regarding Orr's Prior Invention and reduction to practice;

- All documents and files referenced in the Orr Decl.; and

- All documents and things—such as the fully functional laptop trial exhibit at the *Fleming v. Escort* trial (before the Court precluded Escort from using all the software, thus rendering it non-functional), and all the source and executable code that Escort attempted to rely upon at any time during the Fleming v. Escort litigation, whether ultimately allowed to or not, including all the evidence cited in the materials referenced above and all Escort's trial exhibits, whether admitted or not; all container or archive files, such as ".zip" files, as well as the individual uncompressed files which have been combined within each container/archive file; as well as anything withheld from production to date relating to Orr's Prior Invention or Orr's reduction to practice.

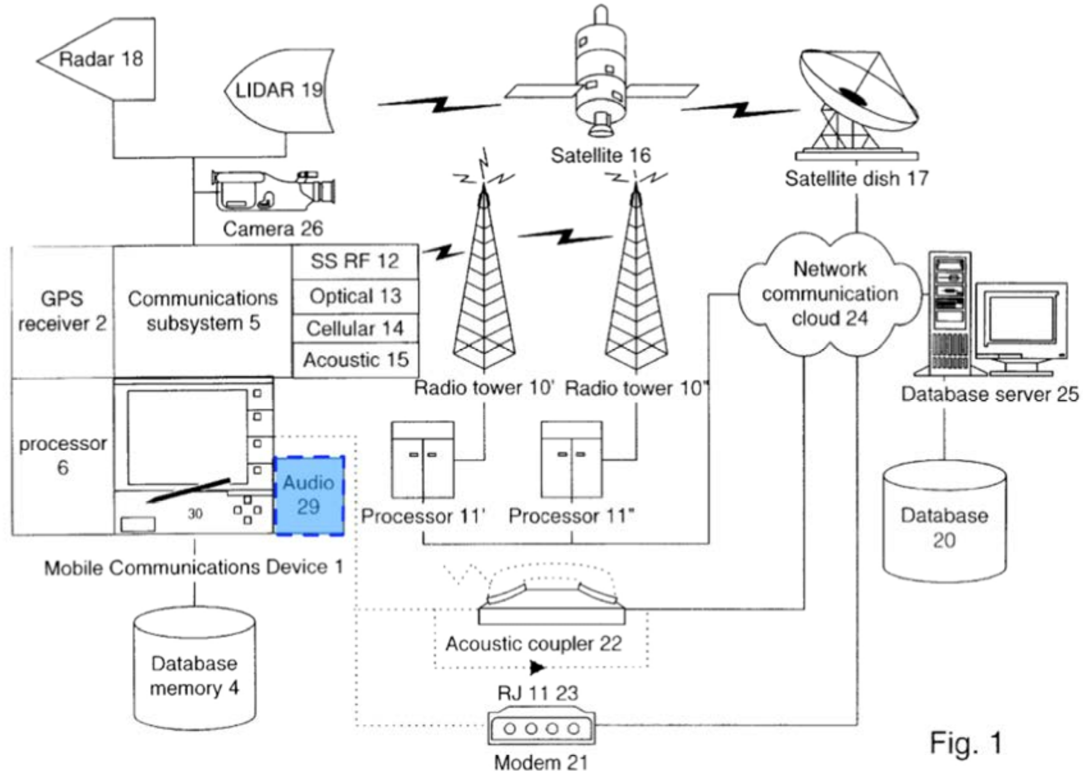
In combination with U.S. Patent No. 6,252,544 ("Hoffberg"), filed January 25, 1999.

Defendant's invalidity contentions are not an admission by Defendant that it infringes or has previously infringed these claims, either literally or under the doctrine of equivalents, particularly when they are properly construed. Nor are Defendant's invalidity contentions an admission regarding the proper scope of the asserted claims. The following citations are exemplary, and Uniden reserves the right to rely upon other portions of the references or other materials cited above.

No.	'653 Claim Language	Knowledge, Use, and Invention by Steven Orr ("Orr's Prior Invention")
38pre	A radar detector for alerting an operator of a motor vehicle to an incoming police radar signal, the radar detector comprising:	If the preamble is limiting, Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches a method "for collecting field data from a radar detector, so that data could be stored from each radar encounter of the detector. The system involved a radar detector cabled (via fiber optics) to a laptop's COM port. When the detector encountered a radar signal sufficient for an alert, spectral information and the band of the encountered radar signal were recorded by the laptop computer, which also emitted an audible 'beep.'" (*See* Orr Decl., at ¶4). This method is executed by a radar detector, which has a position, and generates an alert to an incoming (encountered) radar signal that has a frequency and a signal strength. Orr's Prior Invention teaches use of a "Rockwell NavCard product, which is a PCMCIA card having a fully integrated GPS receiver" and that "[t]he software running in the laptop would generate alerts of received radar signals, but would suppress alerts of radar near a rejected GPS coordinate." (*See* Orr Decl., at ¶¶7, 11). To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[r]adar detectors typically are employed to detect operating emitters of X (10.5 GHz), K (25 GHz) and Ka (35 GHz) radar emissions from traffic control devices or law enforcement personnel for detecting vehicle speed by the Doppler effect." (Col. 19, Ln. 16-20).

		Hoffberg teaches that "In one embodiment, communications devices are installed in automobiles. Mobile GPS receivers in the vehicles provide location information to the communications devices. These GPS receivers may be integral or separate from the communications devices. Event detectors, such as police radar and laser (LIDAR) speed detectors, traffic and weather condition detectors, road hazard detectors (pot holes, debris, accidents, ice, mud and rock slides, drunk drivers, etc.), traffic speed detectors (speedometer reading, sensors for detecting speed of other vehicles), speed limits, checkpoints, toll booths, etc., may be provided as inputs to the system, or appropriate sensors integrated therein." (Col. 21, Ln. 61 - Col. 22, Ln. 6). Hoffberg teaches that "According to one embodiment of the invention, the functions are integrated into a single device, including police radar and LIDAR detectors, user output, memory, central processor, GPS receiver and RF transceiver. Accessory inputs and outputs may also be provided, including means for alphanumeric, graphic (still or motion) or voice message communication between communications devices… By integrating functions, efficiencies are achieved. Thus, a single central processor, memory, program store and user interface will suffice for all functions. Further, the power supply and housing are also consolidated. While GPS and telecommunication antennas will be distinct, other portions of the system may also be integrated." (Col. 24, Ln. 28-62). Hoffberg teaches that "In an alternate embodiment, the GPS receiver includes its own processor and outputs coordinate positions, e.g., Cartesian coordinates, latitude and longitude, to the communications device processor 6, e.g., through a serial port or data bus, such as PC card, Universal serial Bus (USB), Firewire (IEEE 1394), peripheral connect interface (PCI), or other bus, such as that present within an automobile for communication of signals between subsystems." (Col. 26, Ln. 47-54). Hoffberg teaches that "[i]t is noted that, in the case of "false alarms", the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored "false alarm" event, and suppress an alarm or modify the alarm signal. Thus, information stored in memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Col. 29, Ln. 8-13).

		Hoffberg teaches that "[i]n a preferred embodiment, an event sensor is provided, such as a police radar and laser speed detection equipment system (e.g., "radar detector") is provided." (Col. 33, Ln. 10-12).
38a	an alert circuit that alerts the operator of the motor vehicle to the incoming police radar signal;	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches that '[w]hen the detector encountered a radar signal sufficient for an alert, spectral information and the band of the encountered radar signal were recorded by the laptop computer, which also emitted an audible 'beep.'" (See Orr Decl., at ¶4). To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[i]t is noted that, in the case of "false alarms", the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored "false alarm" event, and suppress an alarm or modify the alarm signal. Thus, information stored in memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Col. 29, Ln. 8-13). Hoffberg teaches that "[t]he user output of the system 27 may thus be visual, such as a graphic or alphanumeric (text) display, indicator lights or LEDs 28, audible alerts or spoken voice through an audio transducer 29." (Col. 30, Ln. 61-65).

<table>
<tr><td></td><td></td><td>
</td></tr>
<tr><td>38b</td><td>a GPS receiver that determines a first position and a second position of the radar detector;</td><td>Orr's Prior Invention expressly or inherently discloses this claim limitation.

Orr's Prior Invention teaches using "a fully integrated GPS receiver, and software tools for supporting [a PCMCIA card]." (See Orr Decl., at ¶7).

Orr's Prior Invention teaches "[t]he functions performed using the combined radar encounter and GPS tool included the following function: hitting the space bar on the laptop computer during use would store a current GPS coordinate as a 'rejected coordinate." (See Orr Decl., at ¶ 11).

Orr's Prior Invention teaches performing "numerous driving experiments in which GPS coordinates and velocity information were collected…" (See Orr Decl., at ¶12).</td></tr>
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		Orr's Prior Invention teaches that "Radar Detectors warn drivers of the use of police radar, and the potential for traffic citations if they are driving in excess of the speed limit. The FCC has allocated several regions of the spectrum for Police Radar as well as a variety of 'other' unrelated applications. Radar Detectors cannot tell the difference between many of these other devices and true Police Radar systems. As a result, the significance of a warning from a Radar Detector will decline as more non-Police Radar products are operated in this spectrum. Since the majority of these 'other' applications are stationary, Radar Detectors could ignore them if it knew their locations, and its own location during operation. The Global Positioning Satellite system, or GPS offers an electronic method for establishing current physical coordinates very accurately. This patent describes a new and better way to provide Radar Warning information to drivers by using the information from a GPS receiver to condition the response from a Radar Detector. The product will maintain a list of the coordinates of the known 'offenders' in nonvolatile memory. Each time a microwave or laser source is detected, It will compare its current coordinates to this list. Notification of the driver will take on a-variety of forms depending on the setup configuration." (Orr Decl., Ex. B at Abstract). *See, e.g.*, Orr Dep. at pp. 130-132, 187-188. *See, e.g.*, Orr Dep., Ex. 2 at pp. 9-10:

		Application of GPS to Police Radar Response Conditioning and Three Product Classes. Even though an array of GPS technologies is available for Radar Detection applications, three relative product classes are envisioned. Class 1 is the least expensive and most primitive and is the combination of a Radar Detector with GPS receiver. Class 2 is a combination of the more expensive DGPS receiver pair with Detector. Class 3 is a Radar Detector coupled with another product that already provides GPS or DGPS based services. The distinction between Class 1 and Class 2 service is better understood with the following operating scenario. Each day a driver passes a shopping center that uses X or K-Band Microwave Door openers. His detector faithfully detects these signals during each pass. The driver's Radar Detector is equipped with a GPS receiver and is able to identify its coordinates. As he passes the shopping center he hits the 'lockout' button on his detector. The detector stores the coordinates of his current location, and the frequency of the signal just detected into an internal non-volatile memory device. The following day the driver begins a new journey along the same path. At power up the radar detector begins an iterative task that involves the observation of its coordinates followed by a test to see if these coordinates are within a certain tolerance of any coordinates in its memory. As the journey proceeds, the detector will realize that it is within the tolerance range of the shopping center and prepare to reject any signals that are within a tolerance of the frequencies that were noted from the previous trip. Since Class 1 service is

		Response Options that Take Advantage of GPS Information There are two methods by which the Radar Detector can acquire the coordinates of unwanted sources. One method is for the user to push a 'lock out' button when he believes he is in proximity to a source that he no longer wants to detect. A second method is to have this information be supplied from another source and already be available in stored memory. In this case an external computer must previously send these coordinates to the Radar Detector which then would transfer them to its non-volatile memory. This second method will be discussed later. A number of different operational "lock out" conditions are supported by the software. These cases are itemized as follows: 1. Coordinate match, frequency match, no sound, some visual 2. Coordinate match, no sound, some visual 3. Coordinate match, no sound, minimal visual In case 1, when the Radar Detector enters a locked region denoted by a coordinate match (+- tolerance), it will compare the frequencies of any signals received with those that were present when the lockout was instantiated by the user. If the observed frequency does not match the list of stored frequencies for this region, it is probably being generated by a new source that was not present during the previous lockout. This is likely to occur if Police Radar is being operated in proximity to the lockout region. Consequently the Radar Detector will announce that a new threat is perceived both audibly and visually. If the observed frequency does match one of the members of the list, the detector will produce no audible alert. However it will still produce a visual display indicating detection. The visual display informs the user that the unit is in a lock out region as well as when signals are actually being detected within that region. If the source is determined to be in the "Hazard Signal" category, the Hazard or SWS information will still be displayed but with no audio. The scope of the lockout can be expanded to include more frequencies by hitting the lock out button again. This will occur if the button is depressed while the detector is in audible alert in a previously designated lockout region. The user can also optionally terminate the lock out condition while in the area. *See, e.g.*, Orr Dep., Ex. 34 at p. 2:

```
        WHILE LOC(2) > 128
                LINE INPUT #2, v$
                IF INSTR(v$, "$GPGLL") THEN
                        zlat = fnz(9): zlong = -fnz(22): Sr$ = v$
                        locked = 0
                        FOR I = 1 TO fidx
                                za = ZLock(I, 1) - zlat: zB = ZLock(I, 2) -
zlong: zdist = SQR(za * za + zB * zB)
                                IF zdist < .25 THEN locked = 1: Pindex = I
                        NEXT I
                END IF
                IF INSTR(v$, "$GPVTG") THEN I = INSTR(v$, "M"): zVelocity =
fnzz(I + 2)
        WEND
```

See, e.g., ORR000329 (4/2/96):

Selectivity/Adjustability

* > Adjustable City

next Product [> GPS for $75
 — trainable anti-X source

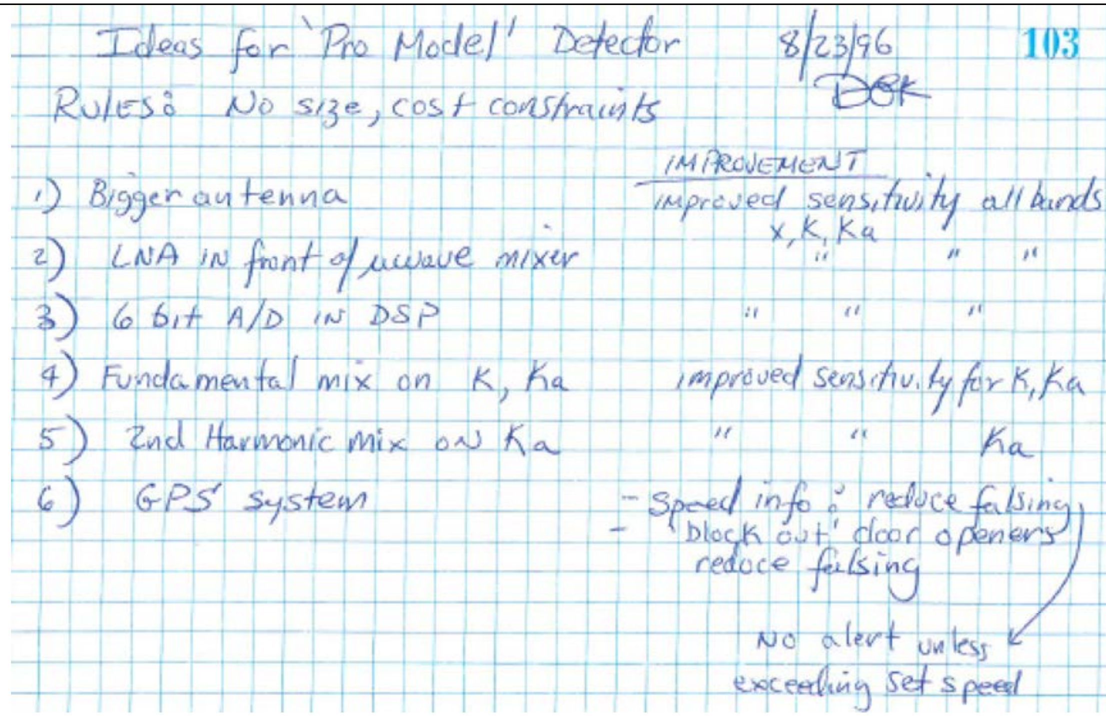
Possible for this Product → — Speed Sensitive sensitivity

> Optional X-band fake function

* 70% probability X-band fake
30% chance CP

		See, e.g., Decl. of Beth Andrews, Ex. 2053, 2050, 2051, IPR2013-00203: 2. In or about 1996, I was involved with product planning at CMI. At that time, it was important to marketing to have the CMI technical staff develop a product to deal with the "falsing" issue, i.e., that solved the false alarm door opener problem wherein a radar detector would render an alert from a non-police radar emission. In other words, in 1996 CMI wanted to have a product that had less "falsing" than other brands so we had a real need to figure out a way to deal with "falsing." 3. Attached hereto as Exhibit 2050 is a true and correct copy of pages from my 1996 "QUAD" calendar. More specifically, as shown therein and in a true and correct excerpt therefrom that is reproduced herein, at or about 1 p.m. (EDT), Tuesday, April 2, 1996, a "Brainstorming" meeting with  Greg Blair, Steve Orr, Tom Perszyk, and myself was held in Conference Room D at CMI. During that meeting, I recorded notes on a whiteboard which had the option to send those notes to a printer. Attached hereto as Exhibit 2051 is a true

		and correct copy of the printout from the whiteboard from that brainstorming session. The printout includes my following handwritten notes: next product > GPS for #75 — trainable auto-X source Thus, during this brainstorming session, I recorded that the "Next Product" would include "GPS" and that it would have a "trainable auto-X source." Exhibit 2051. In other words, the goal was to have a device which one could train, by using Global Positioning System ("GPS") data, to automatically cancel ("X") false radar sources, i.e., sources of radar from other than actual police activities. *Id.* *See, e.g.*, Decl. of Dan Kindel, Exhibit 2056, 2049, IPR2013-00203:

		 Ideas for 'Pro Model' Detector 8/23/96 DSK 103 Rules: No size, cost constraints IMPROVEMENT 1) Bigger antenna improved sensitivity all bands X, K, Ka 2) LNA in front of μwave mixer " " " 3) 6 bit A/D in DSP " " " 4) Fundamental mix on K, Ka improved sensitivity for K, Ka 5) 2nd Harmonic mix on Ka " " Ka 6) GPS system - Speed info: reduce falsing - 'block out' door openers reduce falsing No alert unless exceeding set speed *See, e.g.*, Declaration of Mr. John Kuhn (ESC-000184908-184913) at ¶ 5:

		5. Escort's investment in the Passport 9500i, Passport 9500ix, GX 65, and Passport iQ radar detectors continued in approximately April or May 1996. During that time period, Escort invested in the work of Mr. Steve Orr, who reduced to practice a radar detector that suppressed false alerts. Mr. Orr's work, and Escort's investment, also included collecting field data from a radar detector, so that data could be stored from each radar encounter of the detector, in connection with a laptop computer. Spectral information, frequency, band, and strength of the encountered radar signal were evaluated or recorded by the laptop. The system emitted an audible "beep," although notification of the driver may have taken on a variety of forms depending on the setup configuration. Mr. Orr's work also involved combining radar encounter, GPS tools, and a laptop to store GPS coordinates as rejected coordinates. In this manner, Mr. Orr's work involved recording physical positions of the radar detector, generating alerts of received radar signals, and suppressing alerts near a rejected GPS coordinate. Mr. Orr also evaluated generating an alert if characteristics of the encountered signal were not similar to a predetermined characteristic. Mr. Orr's work also involved a velocity constraint concept being implemented in a radar detector having both GPS and radar detector functions. He used means for ignoring signals based on the vehicle's speed when compared to set speeds and posted limits. Mr. Orr's work also involved using the combined radar encounter and GPS tools, along with

		hitting the space bar on the laptop, to store current GPS coordinates. This provided for response conditioning, including muting. Mr. Orr's work also had the capability to locking out detected signals based on band and frequency. To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[a] mobile communications device comprising a location sensing system, producing a location output; a memory, storing a set of locations and associated events." (Abstract) Hoffberg teaches that "[k]nown GPS mobile systems include memory to record location, time and event type, and some systems may be integrated with global information systems, to track path, speed, etc." (Col. 1, Ln. 23-26). Hoffberg teaches that "In an alternate embodiment, the GPS receiver includes its own processor and outputs coordinate positions, e.g., Cartesian coordinates, latitude and longitude, to the communications device processor 6, e.g., through a serial port or data bus, such as PC card, Universal serial Bus (USB), Firewire (IEEE 1394), peripheral connect interface (PCI), or other bus, such as that present within an automobile for communication of signals between subsystems." (Col. 26, Ln. 47-54).
38c	a processor, the processor receiving data based at least in part upon the second position, the processor also receiving data based at least	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches a method "for collecting field data from a radar detector, so that data could be stored from each radar encounter of the detector. The system involved a radar detector cabled (via fiber optics) to a laptop's COM port. When the detector encountered a radar signal sufficient for an alert, spectral information and the band of the

	in part upon the incoming police radar signal; and	encountered radar signal were recorded by the laptop computer, which also emitted an audible 'beep.'" (See Orr Decl., at ¶4). Orr's Prior Invention teaches that "when the detector encountered a radar signal sufficient…"(See Orr Decl., at ¶4). Orr's Prior Invention teaches "generat[ing] alerts of received radar signals,…" (See Orr Decl., at ¶11). *See, e.g.*, Orr Dep., at 127-128, 158. *See, e.g.*, Kuhn Dep., p. 124. To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[i]n a preferred embodiment, an event sensor is provided, such as a police radar and laser speed detection equipment system (e.g., "radar detector") is provided." (Col. 33, Ln. 10-12). Hoffberg teaches that "[m]any systems using handheld computers, having software and databases defining maps and running standard operating systems, have been coupled to GPS Smart Antennas." (Col. 6, Ln. 64-67).
38d	a display that generates a visual indication based at least in part upon the second position of the radar detector.	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches that "[n]otification of the driver will take on a variety of forms depending on the setup configuration." (*See* Orr Decl., at Exhibit B).

		See, e.g., Orr Dep., pp. 64, 160, 189, 280. *See, e.g.*, Orr Dep., Ex. 34 at p.5 *See, e.g.*, Fleming0021064. To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "[k]nown GPS mobile systems include memory to record location, time and event type, and some systems may be integrated with global information systems, to track path, speed, etc." (Col. 1, Ln. 23-26). Hoffberg teaches a "system makes use of stored map displays wherein the maps of a predetermined area are stored in the in-vehicle computer and displayed to the vehicle operator or driver. The maps, combined with information describing the location where the vehicle started and where it is to go, will highlight the direction and the driver will have to read the display and follow the route." (Col. 7, Ln. 10-17). Hoffberg teaches that "[t]he user output of the system 27 may thus be visual, such as a graphic or alphanumeric (text) display, indicator lights or LEDs 28, audible alerts or spoken voice through an audio transducer 29." (Col. 30, Ln. 61-65).
43	The radar detector of claim 38, wherein the radar detector includes a button and non-volatile memory and the radar detector stores the second position and the	Orr's Prior Invention expressly or inherently discloses this claim limitation. Orr's Prior Invention teaches a method "for collecting field data from a radar detector, so that data could be stored from each radar encounter of the detector. The system involved a radar detector cabled (via fiber optics) to a laptop's COM port. When the detector encountered a radar signal sufficient for an alert, spectral information and the band of the

	frequency of the incoming radar signal in the non-volatile memory based upon data received from the button.	encountered radar signal were recorded by the laptop computer, which also emitted an audible 'beep.'" (*See* Orr Decl., at ¶4). Orr's Prior Invention teaches that "[t]he product will maintain a list of the coordinates of the known 'offenders' in nonvolatile memory." (*See* Orr. Decl., at Exhibit B). Orr's Prior Invention teaches that "[t]he functions performed using the combined radar encounter and GPS tool included the following function: hitting the space bar on the laptop computer during use would store a current GPS coordinate as a 'rejected coordinate.'" (*See* Orr Decl. ¶11). Orr's Prior Invention teaches performing "numerous driving experiments in which GPS coordinates and velocity information were collected…" (*See* Orr Decl., at ¶12). Orr's Prior Invention teaches that "[e]ach time a microwave or laser source is detected, it will compare its current coordinates to this list." (*See* Orr. Decl., at Exhibit B). *See also*: • "FIG. 1 shows a radar detector apparatus 2 having a display 10 constructed in accordance with the present invention. One or more buttons 13 are conveniently located on the radar detector to provide the user with selectable features, such as power, mute, dim, etc." ('554 Pat., Col. 2, Ln. 61-65). • "Processor 22 executes a stored program, found in an electrically erasable programmable read only memory (EEPROM) 34, flash memory, or masked read only memory (ROM). The processor is programmed to manage and report detected signals in various ways depending on its stored program. . . . The radar detector further incorporates a user input keypad or switches 36. Operational commands are conveyed by the user to processor 22 via the keypad." (Orr Publication, ¶¶52-53). • "After selecting appropriate modes based upon keypad activity, in step 112, an appropriate audible or visible response is produced by the GPS enabled radar detector based upon it current operating mode and the presence or absence of radar detector signal received in step 102." (Orr Publication, ¶89). • "The operative modes controllable through the keypad include: 'warning suppression' mode in which warnings, particularly audible warnings, produced by

		the GPS enabled radar detector are suppressed so that they are not disturbing to the operator of the vehicle." (Orr PCT, Pg. 36, Ln. 11-15). • "A third activity that may be undertaken with the keypad, in step 214, is to request to clear all lockouts for the current vehicle location." (Orr PCT, Pg. 53, Ln. 14-15). *See, e.g.*, Orr Dep., pp. 160-164, 230-231, Ex. 2. *See, e.g.*, Orr Dep., Ex. 34 at 2. *See, e.g.*, ESCT-0000140427 (Fleming Trial Day 6 at 278:4 - 279:13) ("If the radar detector was reporting a signal, the laptop was programmed to beep. And the demonstration was realized by hitting the spacebar, which is analogous to hitting the mute button on our products. The spacebar would be seen by the application running in the laptop. At that time, it would record the position reported by the GPS receiver into a file on the laptop, and it would quit beeping.") *See, e.g.*, Declaration of Mr. John Kuhn (ESC-000184908-184913) at ¶5:

		5. Escort's investment in the Passport 9500i, Passport 9500ix, GX 65, and Passport iQ radar detectors continued in approximately April or May 1996. During that time period, Escort invested in the work of Mr. Steve Orr, who reduced to practice a radar detector that suppressed false alerts. Mr. Orr's work, and Escort's investment, also included collecting field data from a radar detector, so that data could be stored from each radar encounter of the detector, in connection with a laptop computer. Spectral information, frequency, band, and strength of the encountered radar signal were evaluated or recorded by the laptop. The system emitted an audible "beep," although notification of the driver may have taken on a variety of forms depending on the setup configuration. Mr. Orr's work also involved combining radar encounter, GPS tools, and a laptop to store GPS coordinates as rejected coordinates. In this manner, Mr. Orr's work involved recording physical positions of the radar detector, generating alerts of received radar signals, and suppressing alerts near a rejected GPS coordinate. Mr. Orr also evaluated generating an alert if characteristics of the encountered signal were not similar to a predetermined characteristic. Mr. Orr's work also involved a velocity constraint concept being implemented in a radar detector having both GPS and radar detector functions. He used means for ignoring signals based on the vehicle's speed when compared to set speeds and posted limits. Mr. Orr's work also involved using the combined radar encounter and GPS tools, along with

		hitting the space bar on the laptop, to store current GPS coordinates. This provided for response conditioning, including muting. Mr. Orr's work also had the capability to locking out detected signals based on band and frequency. *See, e.g.*, Kuhn Dep. pp. 97-99. To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "In one embodiment, communications devices are installed in automobiles. Mobile GPS receivers in the vehicles provide location information to the communications devices. These GPS receivers may be integral or separate from the communications devices. Event detectors, such as police radar and laser (LIDAR) speed detectors, traffic and weather condition detectors, road hazard detectors (pot holes, debris, accidents, ice, mud and rock slides, drunk drivers, etc.), traffic speed detectors (speedometer reading, sensors for detecting speed of other vehicles), speed limits, checkpoints, toll booths, etc., may be provided as inputs to the system, or appropriate sensors integrated therein." (Col. 21, Ln. 61 - Col. 22, Ln. 6). Hoffberg teaches that "According to one embodiment of the invention, the functions are integrated into a single device, including police radar and LIDAR detectors, user output, memory, central processor, GPS receiver and RF transceiver. Accessory inputs and outputs may also be provided, including means for alphanumeric, graphic (still or motion) or voice message communication between communications devices… By integrating functions, efficiencies are achieved. Thus, a single central processor, memory, program store and user interface will suffice for all functions. Further, the power supply and housing are also

		consolidated. While GPS and telecommunication antennas will be distinct, other portions of the system may also be integrated." (Col. 24, Ln. 28-62). Hoffberg teaches that "[a]ccessory inputs and outputs may also be provided, including means for alphanumeric, graphic (still or motion) or voice message communication between communications devices." (Col. 24, Ln. 32-35). Hoffberg teaches that "In an alternate embodiment, the GPS receiver includes its own processor and outputs coordinate positions, e.g., Cartesian coordinates, latitude and longitude, to the communications device processor 6, e.g., through a serial port or data bus, such as PC card, Universal serial Bus (USB), Firewire (IEEE 1394), peripheral connect interface (PCI), or other bus, such as that present within an automobile for communication of signals between subsystems." (Col. 26, Ln. 47-54). Hoffberg teaches that "[i]n an adaptive device, if the user believes that the information from the device is inappropriate, a simple input is provided, which is later analyzed to alter the information presentation algorithm." (Col. 28, Ln. 42-49). Hoffberg teaches that "[i]t is noted that, in the case of "false alarms", the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored "false alarm" event, and suppress an alarm or modify the alarm signal. Thus, information stored in memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Col. 29, Ln. 8-13). Hoffberg teaches that "In order to analyze temporal relevance, the memory 4 preferably stores an event identifier 301, a location 302, a time of detection of an event 303, a source of the event information 304, an encoding for a likely expiration of the event 305, a reliability indicator for the event 306, and possibly a message associated with the event 307 including other information." (Col. 30, Ln. 20-26). Hoffberg teaches "an event detector, which, in turn is preferably a police radar 18 and LIDAR 19 detector. Other detected events may include speed of vehicle, traffic conditions, weather conditions, road conditions, road debris or potholes, site designation, sources of radio signals or interference or false alarms for other event detectors, and particular vehicles, Such as drunk drivers or unmarked police cars (possibly by manual event input)." (Col. 30, Ln. 44-52).

		Hoffberg teaches that "[t]he user interface may include one or more push keys, toggle switches, proximity switches, trackballs, joysticks or pressure sensitive keys, a touch-sensitive display screen, microphones or a combination of any of the above used together or with other similar type user input methods." (Col. 33, Ln. 34-39). Hoffberg teaches "[t]he device according to claim 1, further comprising a manual input, said manual input being stored in said memory in relation to position information." (Hoffberg, cl. 3).
44	The radar detector of claim 38, wherein the radar detector includes a mute button and non-volatile memory and the radar detector stores data in the non-volatile memory based upon data received from the mute button.	*See* **43**.
47	The radar detector of claim 38, wherein the radar detector includes a mute button and non-volatile memory and the radar detector performs an act that is unrelated to muting an alert based upon data received from the mute button.	Orr's Prior Invention expressly or inherently discloses this claim limitation. *See* **43**. Orr's Prior Invention teaches "[t]he functions performed using the combined radar encounter and GPS tool included the following function: hitting the space bar on the laptop computer during use would store a current GPS coordinate as a 'rejected coordinate.' (*See* Orr Decl., at ¶11). Orr's Prior Invention teaches "[r]esponse conditioning including Mute and Automute." (*See* Orr Decl., at Exhibit B). Orr's Prior Invention teaches that "[t]he product will maintain a list of the coordinates of the known 'offenders' in nonvolatile memory." (*See* Orr. Decl., at Exhibit B).

		To the extent that Orr's Prior Invention does not expressly or inherently disclose any elements of this limitation, it would have been obvious to one of ordinary skill in the art to combine, with the teachings of this reference, those elements, as known to one of ordinary skill or as disclosed by other prior art identified in Defendant's invalidity contentions. For example: Hoffberg teaches that "In one embodiment, communications devices are installed in automobiles. Mobile GPS receivers in the vehicles provide location information to the communications devices. These GPS receivers may be integral or separate from the communications devices. Event detectors, such as police radar and laser (LIDAR) speed detectors, traffic and weather condition detectors, road hazard detectors (pot holes, debris, accidents, ice, mud and rock slides, drunk drivers, etc.), traffic speed detectors (speedometer reading, sensors for detecting speed of other vehicles), speed limits, checkpoints, toll booths, etc., may be provided as inputs to the system, or appropriate sensors integrated therein." (Col. 21, Ln. 61 - Col. 22, Ln. 6). Hoffberg teaches that "According to one embodiment of the invention, the functions are integrated into a single device, including police radar and LIDAR detectors, user output, memory, central processor, GPS receiver and RF transceiver. Accessory inputs and outputs may also be provided, including means for alphanumeric, graphic (still or motion) or voice message communication between communications devices… By integrating functions, efficiencies are achieved. Thus, a single central processor, memory, program store and user interface will suffice for all functions. Further, the power supply and housing are also consolidated. While GPS and telecommunication antennas will be distinct, other portions of the system may also be integrated." (Col. 24, Ln. 28-62). Hoffberg teaches that "[a]ccessory inputs and outputs may also be provided, including means for alphanumeric, graphic (still or motion) or voice message communication between communications devices." (Col. 24, Ln. 32-35). Hoffberg teaches that "In an alternate embodiment, the GPS receiver includes its own processor and outputs coordinate positions, e.g., Cartesian coordinates, latitude and longitude, to the communications device processor 6, e.g., through a serial port or data bus, such as PC card, Universal serial Bus (USB), Firewire (IEEE 1394), peripheral connect

		interface (PCI), or other bus, such as that present within an automobile for communication of signals between subsystems." (Col. 26, Ln. 47-54). Hoffberg teaches that "In an alternate embodiment, the GPS receiver includes its own processor and outputs coordinate positions, e.g., Cartesian coordinates, latitude and longitude, to the communications device processor 6, e.g., through a serial port or data bus, such as PC card, Universal serial Bus (USB), Firewire (IEEE 1394), peripheral connect interface (PCI), or other bus, such as that present within an automobile for communication of signals between subsystems." (Col. 26, Ln. 47-54). Hoffberg teaches that "[i]n an adaptive device, if the user believes that the information from the device is inappropriate, a simple input is provided, which is later analyzed to alter the information presentation algorithm." (Col. 28, Ln. 42-49). Hoffberg teaches that "[i]t is noted that, in the case of "false alarms", the response of the unit is to detect the event, e.g., radar signal, correlate it with a stored "false alarm" event, and suppress an alarm or modify the alarm signal. Thus, information stored in memory and/or transmitted between units, may signify an important alarm or a suppression of an erroneous alarm." (Col. 29, Ln. 8-13). Hoffberg teaches that "In order to analyze temporal relevance, the memory 4 preferably stores an event identifier 301, a location 302, a time of detection of an event 303, a source of the event information 304, an encoding for a likely expiration of the event 305, a reliability indicator for the event 306, and possibly a message associated with the event 307 including other information." (Col. 30, Ln. 20-26). Hoffberg teaches "an event detector, which, in turn is preferably a police radar 18 and LIDAR 19 detector. Other detected events may include Speed of vehicle, traffic conditions, weather conditions, road conditions, road debris or potholes, Site designation, Sources of radio signals or interference or false alarms for other event detectors, and particular vehicles, Such as drunk drivers or unmarked police cars (possibly by manual event input)." (Col. 30, Ln. 44-52). Hoffberg teaches that "[t]he user interface may include one or more push keys, toggle switches, proximity switches, trackballs, joysticks or pressure sensitive keys, a touch-

		sensitive display screen, microphones or a combination of any of the above used together or with other similar type user input methods." (Col. 33, Ln. 34-39).